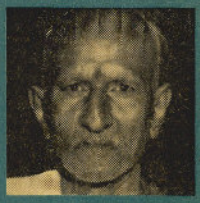
WORLD RADIO TV HANDBOOK

1964 · 18th edition

TO

LIVE



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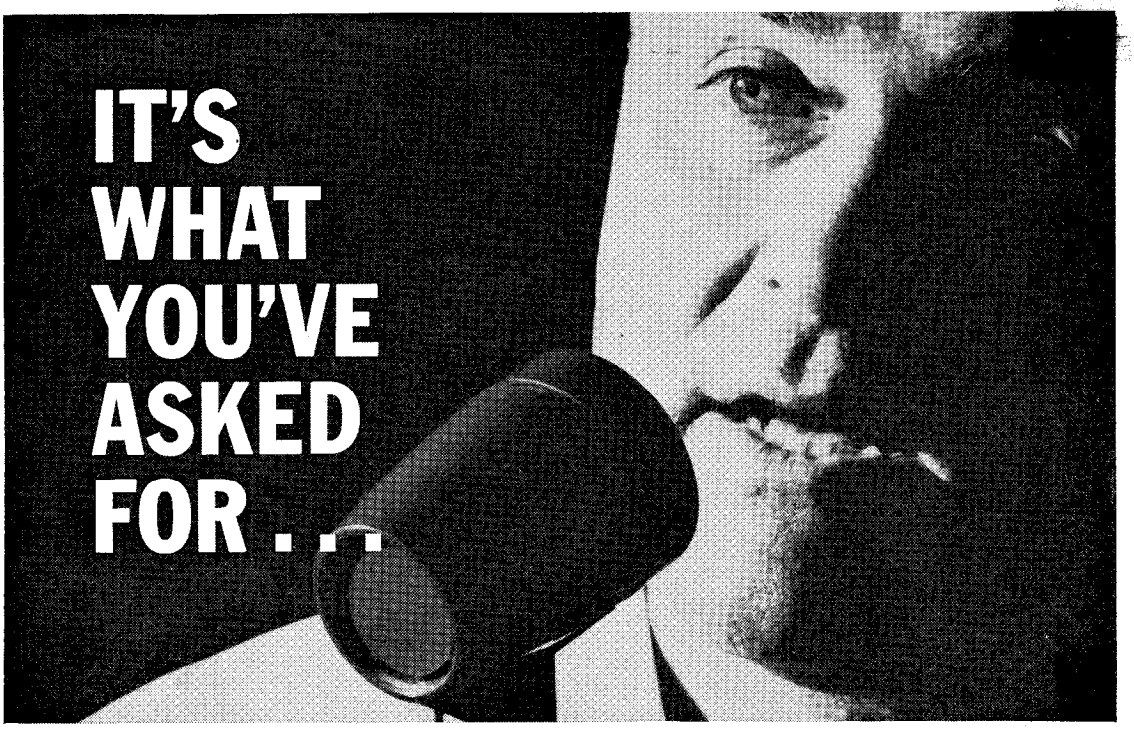
Arabic	kc	Area
15.45–16.30	21545	VI
20.05–20.50	11800	XI
English		
14.00–14.45	15190	I
14.45–15.30	17910	III
14.45–15.30	21545	IV
14.45–15.30	6070	V
16.30–17.15	17910	VIII
17.00–17.45	6070	V
18.30–19.15	11800	I
20.00–20.45	15287	IV
20.00–20.45	6070	V
20.50–21.35	11800	X
21.30–22.15	6070/9545	V

French	kc	Area
17.45–18.30	11800	VIII
17.45–18.30	6070	V
19.15–20.00	11800	VIII
19.15–20.00	6070/9545	V
20.45–21.30	6070/9545	V
Hausa		
15.45–16.30	6070	V
18.30–19.15	6070/9545	V
Portuguese		
14.00–14.45	21545	II
16.45–17.30	21545	II
16.45–17.30	11800	II + VII
Swahili		
14.00–14.45	17910	III
15.45–16.30	17910	III
17.15–18.00	17910	III

N. in English; 14.00, 14.45, 17.00, 20.00, 20.50, 21.30.



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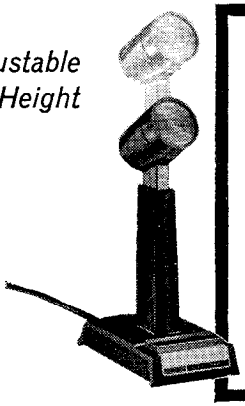

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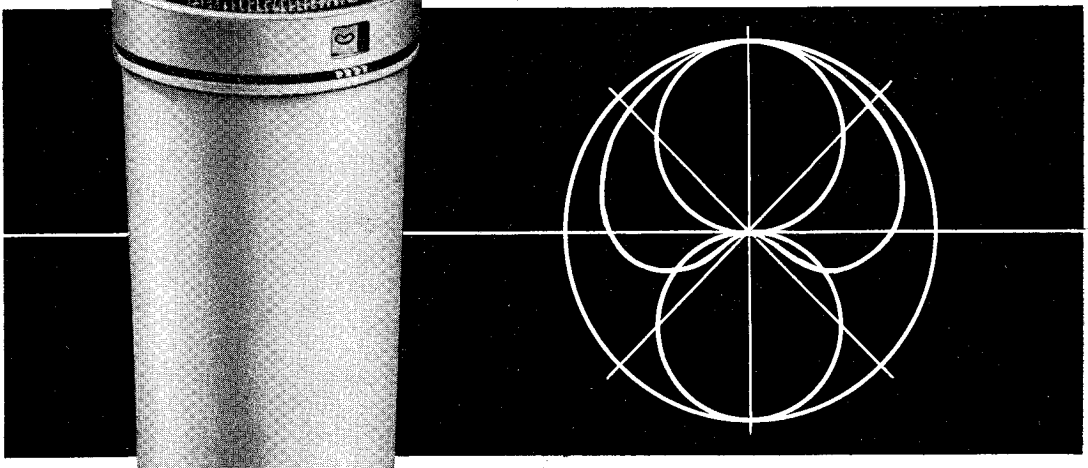

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PREFACES

E. William Henry

It has often been remarked that the extraordinary development of modern science has placed in human hands more power to destroy or create than history has ever known—and that the ultimate use made of this power depends, not on science, but on such practical wisdom as we are able to muster. Nowhere is this more evident than in the field of international broadcasting.

Here is a medium, as we know to our sorrow, that can be used to divide, to create hate, to foment violence. Here is a medium that has also been used to enlighten, to create understanding among peoples, to delight the eye, ear and mind. And here also is a medium that can be used as a sporific—to entertain fitfully, to reflect passively and to communicate as little of the truth about the lives of different peoples as is possible. The road that will be taken—the human purposes that will be served—these do not rest with the scientists and engineers whose brilliance and daring created the medium and every day extend its technical power and coverage. They rest rather with an odd mixture of businessmen, government officials and—most of all—the creative broadcasters who operate the stations, make the programs and give the medium its real life. Here, where the practical power and responsibility for international broadcasting lie, we must find the practical wisdom to meet the demands that our age makes of the international broadcasting medium.

E. WILLIAM HENRY

Chairman Federal Communications Commission
Washington, U.S.A.

Tor Gjesdal

The role of radio and television broadcasting has long been of great concern to Unesco. It is part of Unesco's mandate to cooperate with countries throughout the world in their efforts to improve, expand and make the most effective use of their information media. In this field, Unesco has pursued three main objectives: to promote the free flow of information and the development of the means and techniques of mass communication; to develop the use of these media and techniques in the service of education; and to stimulate the use of the information media in furthering international understanding.

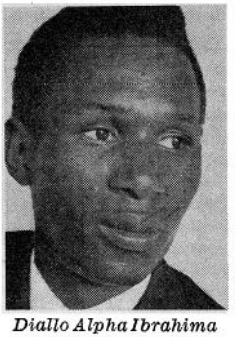
Revolutionary progress in communication techniques has opened up vast new possibilities and presented new challenges in the field of radio and television broadcasting. Nearly 70% of the world's population, living in over 100 countries in Africa, Asia and Latin America, still lack adequate means of beeing kept informed of problems and events at home, not to mention in other countries.

It is significant that the countries which lack adequate information facilities also suffer most acutely from illiteracy, disease, malnutrition and economic underdevelopment in general. These nations have now come to realise that if their living standards are to be raised, their education standards must first of all be improved. It is against this background that radio and television have a major role to fulfil as basic tools for spreading knowledge in and out of the classroom, about farming and industrial techniques, health and public welfare, as well as news and information of day to day interest.

The new potentials of the electronic mass media can greatly help to accelerate and expand this whole process of economic development and to promote international understanding in the cause of peace. In this context, *the World Radio and Television Handbook* serves a valuable purpose as a unique and constant guide for all those who are connected with these two media.

TOR GJESDAL

Director, Department of Mass Communication
UNESCO, Paris



Diallo Alpha Ibrahima

Today it is unnecessary to stress the important part played by radio and TV in respect of people and nations in modern times.

If in developed countries these two means of communication are on an equal footing with the press, the case is different in regard to the young countries, particularly in Africa, where radio everywhere constitutes the basic element and the essential information factor of public opinion, of education, and of the mobilisation of the popular masses in that continent. In the course of the last ten years, or, to be more precise, since the independence of several African States, the development of "audio-visual" means has made considerable progress. In the smaller villages, for example, radio has become the element of contact with the outside world, the technical adviser of the peasant and the housewife, the entertainment of young people, the teacher and source of information.

Radio is such an integral part of our people's daily life that its development and orientation today is reflected in the dynamic evolution of our political, economic, cultural and social life.

TV, which is now beginning to make headway in Africa, will here find unlimited possibilities, especially in the field of education. Nevertheless, it is to be feared that the commercial side of TV may bar the road to this strong medium of expression for which Africa has so great a need.

The formation of an African Radio and TV Union is an answer to the urge possessed by the several African States to see their broadcasts reflect the profound thought and varied aspects of African life. And this does not preclude—in fact rather the opposite is the case—an approach to and knowledge of the outside world with which we have free and loyal relations, and always will have. For this

Continued page 4.

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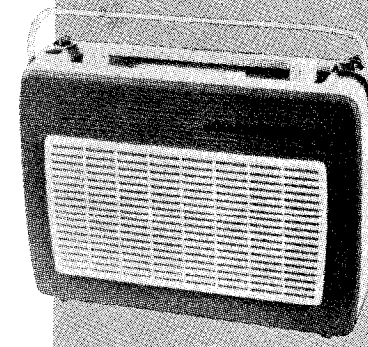
European version:

long	wave	2000 – 950 m.
med.	wave	600 – 182 m.
short	wave	53 – 16 m.
FM	wave	87,5–108 Mc/s.

American version:

med.	wave	600 – 182 m.
sh. 1	wave	131 – 37,5 m.
sh. 2	wave	34,5– 10,5 m.
FM	wave	87,5–108 Mc/s.

A combined portable and car model also available with Long-Medium- and FM-bands. Mounting bracket to place the set under the dashboard, at extra costs.



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European version:

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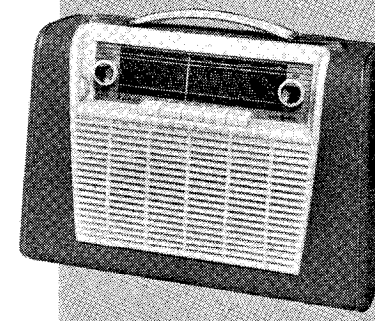
marine	wave	175 – 58 m.
short	wave	52 – 16 m.

American version:

medium	wave	610 – 182 m.
marine	wave	175 – 58 m.
short 1	wave	57 – 21 m.
short 2	wave	27 – 10 m.



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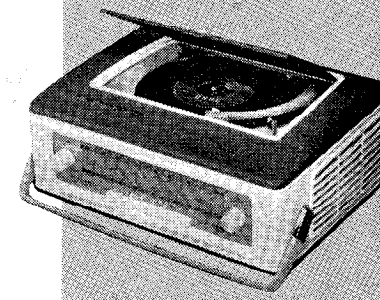
European version:

long	wave	2000 – 1100 m.
medium	wave	580 – 187 m.
short	wave	49 – 16 m.

European FM version:

long	wave	2000 – 1100 m.
med.	wave	580 – 187 m.
short	wave	49 – 16 m.
FM	wave	87,5 – 108 Mc/s.

American FM version: Medium-, 2 short-waves and FM band. Combined battery and mains model of same set also available.



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Weight	13 lbs
Spool dia	7"
Speed fluctuation (wow)	± 0.16 %
Power supply	10 x 1.5 V cells
Autonomy	about 30 hours
Response curves	
40 to 12,000 c/s	± 1 dB
40 to 15.000 c/s	+ 1 – 4 dB
Signal / noise ratio (weighted) at 7 1/2" per sec. speed	> 50 dB
Harmonic distortion (recording + playback)	< 3 %

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Recommended by:

United Nations – UNESCO – European Broadcasting Union – International Radio and Television Organization (O.I.R.T.), Prague.

AUSTRALIA: Australian Broadcasting Commission (incl. Radio Australia).

AUSTRIA: Österreichischer Rundfunk G.m.b.H.

BELGIUM: The Belgian National Broadcasting Service.

BURMA: Burma Broadc. Service.

CANADA: Canadian Broadcasting Corp.

CYPRUS: Cyprus Broadc. Corp.

CZECHOSLOVAKIA: Ceskoslovensky rozhlas.

DENMARK: Denmarks Radio.

EIRE: Radio Eireann.

FINLAND: The Finnish Broadc. Company

FRANCE: Radiodiffusion – Télévision Française.

GERMANY: Deutsche Welle – Bayerischer Rundfunk – Hessischer Rundfunk – Nord- u. Westdeutscher-Rundfunk – Süddeutscher Rundfunk – Südwestfunk-Radio Saarbrücken.

GHANA: Ghana Broadcasting Corp.

GREAT BRITAIN: British Broadcasting Corporation commends the aims of the WRTH.

GREECE: National Broadcasting Institute.

HOLLAND: Radio Nederland Wereldomroep.

HUNGARY: Hungarian Broadc. Service.

INDIA: All India Radio.

INDONESIA: Radio Republik Indonesia.

IRAN: Radio Teheran.

ISRAEL: Israel Broadc. Service.

ITALY: RAI – Radiotelevisione Italiana.

JAPAN: NHK – Broadc. Corp. of Japan.

MALAYA: Radio Malaya.

NEW ZEALAND: New Zealand Broadcasting Corporation.

NIGERIA: Nigerian Broadcasting Corp.

NORWAY: Norsk Rikskringkasting.

PAKISTAN: Radio Pakistan.

THE PEOPLES REPUBLIC OF CHINA: Radio Peking.

POLAND: Polskie Radio i Telewizja.

PORTUGAL: Emissora Nacional de Radiodifusão.

RUMANIA: Comitetul de Rad.

SAUDI ARABIA: Saudi Arabia Broadc.

SPAIN: Radio Nacional de España. – Sociedad Española de Radiodifusion. – Red de Emisoras del Movimiento.

SWEDEN: Swedish Broadc. Corp.

SWITZERLAND: Swiss Broadc. Corp.

TURKEY: Radio Ankara.

UNION OF SOUTH AFRICA: South African Broadc. Corp.

USA: The Voice of America. – Radio New York Worldwide (WRUL).

USSR: The State committee for Broadcasting and Television.

VATICAN STATE: Vatican Radio.

The Editor of the World Radio Television Handbook seeks information from all stations and organizations engaged in broadcasting and/or television and interested in international broadcasting and/or television and publishes the information as communicated to him by the stations or organizations. The Editor cannot be held responsible for the correctness of these information or for not publishing schedules and other particulars of stations which do not supply these information, or for changes in the times and wavelengths of programmes made after the current edition has

WORLD RADIO TV HANDBOOK

BROADCASTING TELEVISION 1964

★

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TABLE OF CONTENTS

Prefaces 04, 4, 6, 8

How to use the World Radio Television Handbook 10, 12

International Broadcasting Listening .. 14

International Broadcasting Organizations 18, 20

More facts about Eurovision 22, 24

Intervision 26, 54

Plan for Broadcasting the Tokyo Olympics 30

Inter-continental Television Progress 1963 – Future 1964 ..... 32, 34

Radio and Television in the service of information and education in developing countries 36, 38

Colour-Television Standards for Europe 40

Interference, Jamming – and you ... 42, 44

Aerials for Short Wave, Medium Wave and Long Wave reception 48, 50

Where to listen for Satellite Signals . 52, 54

The world of radio broadcasting 56

Solar Activity 58

Short Wave reception conditions expected during 1964 60

Frequency bands allocated to Broadcasting, Television and Amateurs 62

Call Sign allocations 62

World Time in all countries 64

Table of the most suitable metre bands 1964 66

DX-Programmes 66

Esperanto 66

Number of listeners 72, 73

Abbreviations 74

A world survey of Sound Broadcasting ..... 80 to 220

A world survey of television 221

Long and Medium Wave stations 241–243

Short Wave stations of the world 244–262

Collaborators 262

Religious Broadcasting Organizations. 263

DX-clubs of the world 264

Where to obtain our publications and a list of our publications 265

Directory of advertisers 266

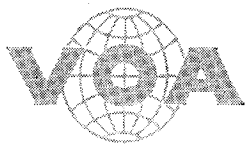
World Charts: Europe 70, Africa 131, Asia 146, Pacific 169, No. America 177, C. and So. America 187.

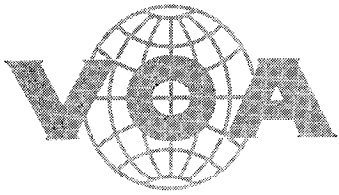
Voices and Pictures of the world 28, 46, 68, 76

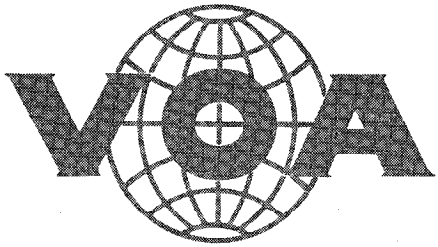
News in English (Foreign Services) and Standard Frequency and Time Signal stations on a loose sheet enclosed.

In this edition we have arranged the countries in the table of contents alphabetically in order to meet the wishes of a number of our readers who wished the sections dealing with Sound Broadcasting and Television to be so ordered instead of by continental areas.

	SOUND	TV
Aden	147	230
Afghanistan	147	
Albania	80	222
Algeria	132	229
Andorra	80	
Angola	132	
Argentina	201	237
Ascension Isl.	133	
Australia	170	233
Austria	80	222
Azores	81	
Bahamas	189	
Bahrain	147	
Barbados	189	
Basutoland	133	
Bechuanaland	133	
Belgium	81	222
Bermuda	178	234
Bolivia	202	
Borneo No.	147	
Brazil	203	237
Brunei	147	
Bulgaria	82	222
Burma	147	
Burundi	133	
Cambodia	147	230
Cameroon	133	
Canada	178	234
Canary Isl.	134	230
Cape Verde Islands	134	
C. African Rep.	134	
Ceylon	148	
Chad	134	
Chile	208	237
China P. R.	148	230
Christmas Isl.	173	
Colombia	209	237
Comores Isl.	134	
Congo Rep.	134	
Congo (Franco African Community)	135	230
Cook Isl.	175	
Costa Rica	189	235
Cuba	189	235
Cyprus	152	231
Czechoslovakia	82	222
Dahomey	135	
Denmark	84	222
Dominican Rep.	190	235
Ecuador	211	237
Egypt. (U.A.R.)	135	230
El Salvador	191	236
Ethiopia	136	
Falkland Isl.	214	
Faroe Isl.	85	
Fiji	175	
Finland	85	222
France	86	222
Gabon	137	
Gambia	137	
Germany Fed. Rep.	90	223
Germany Dem. Rep.	98	225
Ghana	137	230
Gilbert & Ellice Isl.	175	
Gibraltar	99	225
Great Britain	99	225
Greece	102	
Greenland	181	
Guadeloupe	191	
Guatemala	191	236
Guiana Br.	215	
Guiana Fr.	215	
Guinea Rep.	137	
Guinea Port.	137	
Guinea Sp.	137	
Haiti	192	236
Hawaii	175	233
Holland	103	226
Honduras, Brit.	193	
Honduras Rep.	193	236
Hong Kong	152	231
Hungary	104	226
Iceland	106	
India	152	231
Indonesia	154	231
Iran	155	231
Iraq	156	231
Ireland	106	226
Israel	156	
Italy	106	226
Ivory Coast	137	230
Jamaica	194	236
Japan	156	231
Jordan	160	
Kenya	138	230
Korea (P.D. Rep.)	161	
Korea Rep.	161	232
Kuwait	162	232
Laos	162	
Lebanon	162	232
Leeward Isl.	194	
Liberia	138	
Libya	138	
Luxembourg	107	227
Macau	162	
Madeira Isl.	139	
Malaya	162	232
Malagasy Rep.	139	
Mali	139	
Malta	108	227
Marianas Isl.	175	234
Marshall Isl.	175	
Martinique	194	
Mauretania	139	
Mauritius	139	230
Mexico	195	236
Monaco	108	227
Mongolia	163	
Morocco	139	230
Mozambique	140	230
Nepal	163	
Netherlands Ant.	197	236
New Caledonia	175	
New Hebrides	175	
New Zealand	176	234
Nicaragua	198	236
Niger	141	
Nigeria	141	230
Norfolk Isl.	176	
Norway	108	
Pakistan	163	
Panama	199	236
Papua	176	
Paraguay	215	
Peru	215	237
Philippines	164	232
Poland	110	227
Portugal	111	228
Puerto Rico	199	236
Reunion	142	
Rhodesia	143	230
Nyasaland	143	
Rumania	112	228
Rwanda	143	
Ryukyu Isl.	166	233
Samoa	176	234
Sao Tomé	143	
Sarawak	166	
Saudi Arabia	166	233
Senegal	143	230
Seychelles	143	
Sierra Leone	143	230
Singapore	166	233
Solomon Isl.	178	
Somali Rep.	144	
Somaliland Fr.	144	
So. Africa Rep.	144	
Spain	114	228
St. Pierre & Miquelon	181	
Sudan	145	
Surinam	217	
Swan Isl.	200	
Sweden	118	228
Switzerland	121	228
Syrian Arab Rep.	167	233
Tahiti	178	
Tanganyika	145	
Taiwan	151	230
Tchad		
Thailand	167	233
Timor	168	
Togo	145	
Tonga Isl.	178	
Trinidad	200	236
Tunisia	145	
Turk Islands	200	
Turkey	168	233
Uganda	145	230
United Nations	188	
Upper Volta	145	230
Uruguay	217	238
U.S.A.	181	235
U.S.S.R.	122	229
Vatican State	128	
Venezuela	218	238
Vietnam (P. D. Rep.)	168	
Vietnam, Rep.	170	
Virgin Isl.	200	236
Windward Isl.	200	
Yemen	170	
Yugoslavia	128	229
Zanzibar	145	







BROADCASTS IN
36 LANGUAGES
OVER A NETWORK
OF 100 TRANSMITTERS
AROUND THE CLOCK
AROUND THE GLOBE

VOICE OF AMERICA

U. S. INFORMATION AGENCY, WASHINGTON, 25, D.C.

PREFACES *Continued from page 04.*

reason we highly value the important contribution made by *World Radio TV Handbook*, a real reference book concerning everything connected with the Radio and TV world. The quality of this manual and the comprehensive material that it contains will help to knit more closely the bonds between the various international radio and TV organisations.

On this occasion, in the capacity of President of "l'Union des Radiodiffusion et Télévisions nationales d'Afrique", I express the hope that those responsible in these organisations in Europe, America, Asia and Africa can meet in the near future to consider our common problems and to reach a better international cooperation in view of the friendship existing between the peoples and for the strengthening of peace.

DIALLO ALPHA IBRAHIMA
President African Broadcasting and Television Union (URTNA)

John H. Gayer

Until recently, when broadcasting and television were mentioned, the first thing that sprang to mind was entertainment; now these services are recognized as one of the world's greatest media of mass information and education. Parallel with this change, it has been realized that it is not only important to *transmit* effectively, but that success is not possible unless satisfactory *reception* is ensured also. In this connection, the International Telecommunication Union plays a vital role. Through internationally agreed regulations, provisions are made for the orderly transmission of a programme *which can be received by the intended listener*. The effectiveness of the implementation of these regulations depends absolutely upon international co-operation between all countries. Although since 1948 at Atlantic City conferences have been held and regulations have existed, the importance of the international regulation of this service was not fully appreciated by broadcasters until 1959. At the Extraordinary Administrative Radio Conference held in that year, a procedure was adopted for regulating the high frequency broadcasting service. Since that time, the procedure is helping to an ever greater extent in making reception tolerable in the limited bands that are available for this service, season by season. This has been done even though the volume of broadcasting has continued its tremendous upsurge in a frequency spectrum steadily shrinking due to falling sunspot activity: orderly regulation has avoided otherwise inevitable chaos. Other notable steps for improving reception conditions are the preparation of the Television and FM Broadcasting Agreement and Plan for Europe (Stockholm, 1961), a generally similar Plan for the continent of Africa (Geneva, 1963), and the conference to prepare a parallel Plan for low and medium wave broadcasting for Africa that is scheduled for 1964. Other such conferences are foreseen which will provide for the orderly use of the frequencies on a regional basis throughout the world.

High frequency broadcasting, therefore will continue to be used for international long distance broadcasts even in the prevailing congestion, while the national services can be improved on the low and medium waves, and FM sound broadcasting can be extended. Further relief is even foreseen through the use of satellites to relay broadcast transmissions and—ultimately—for direct broadcasts. Through such efforts, and with the active desire of the regulatory and broadcasting organizations of all countries to achieve better broadcasting reception conditions, our common goal of quality listener reception of each and every programme will be attained.

JOHN H. GAYER
Chairman, Intern. Frequency Registr. Board (I.F.R.B.) International Telecommunication Union (I.T.U.),

D. K. von Bismarck

Millions of people all over the world have come to regard Radio and Television as a feature of everyday life. Day in and day out, people expect to be informed and entertained and nobody seriously doubts the tremendous importance of these new mass communication media in our times.

Among the many voices that span the globe, the 9 broadcasting stations in the Federal Republic of Germany which form ARD regard it as their proudest task to inform the German people about the world and to link our people to the world. It is our firm belief that no nation and no people can live in this world today without an informed understanding of its fellowpeople, their culture, their ways of life and their hopes and fears. Our programs try to foster such an understanding. For all of us, working in the media, *World Radio Television Handbook* has been of great help and will continue to give help to the cooperation among Radio and TV stations all over the world.

D. KLAUS VON BISMARCK
Intendant, Westdeutscher Rundfunk, Köln, Chairman of "Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland (ARD)"

M. Rodino di Miglione

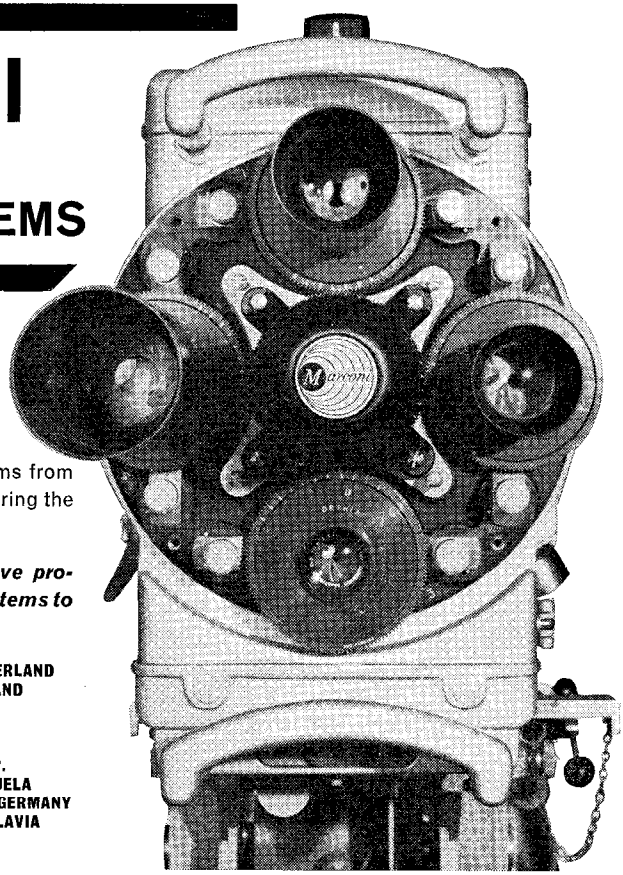
It would be absurd to imagine the world such as it is deprived of the means of mass communication that are now in existence and, in particular, of sound and television broadcasting.

Immense possibilities of mutual understanding between nations and individuals can be fostered in order that the problems, difficulties and hopes of the one become familiar to the other. Undoubtedly great steps have been taken along the road to Peace by men of good will. But one of the major obstacles preventing a rapid and fruitful progress towards a general improvement of mankind, is ignorance.

Continued page 6.

MARCONI

COMPLETE TELEVISION SYSTEMS

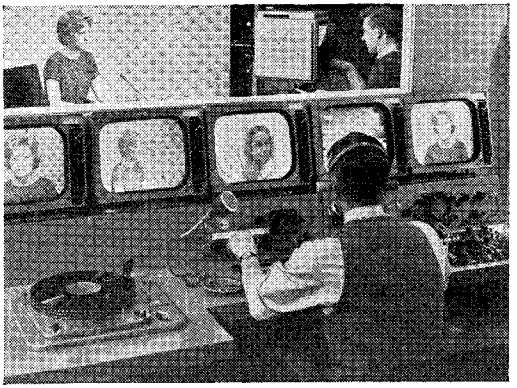


SURVEYED
PLANNED
INSTALLED

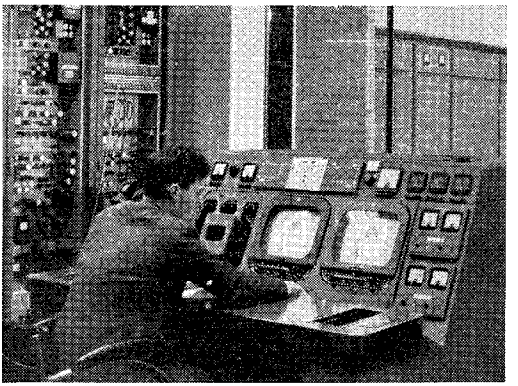
Marconi's have designed and installed systems from large television centres to small stations requiring the minimum of operational staff.

Marconi's world wide system services have provided television equipment or complete systems to 42 countries.

ARGENTINA	EIRE	KENYA	SWITZERLAND
AUSTRALIA	FINLAND	LEBANON	THAILAND
AUSTRIA	FRANCE	MALTA	U.K.
BRAZIL	GHANA	MEXICO	U.N.
CANADA	GIBRALTAR	NEW ZEALAND	U.S.A.
CHINA	HOLLAND	NIGERIA	U.S.S.R.
CYPRUS	HONG KONG	NORWAY	VENEZUELA
CZECHOSLOVAKIA	HUNGARY	POLAND	WEST GERMANY
DENMARK	INDIA	RUMANIA	YUGOSLAVIA
EAST GERMANY	ITALY	SINGAPORE	
EGYPT	JAPAN	SWEDEN	



Packaged television station designed for minimum staffing.



The Marconi equipped B.B.C. London Transmitting Station at Crystal Palace.

MARCONI ***TELEVISION SYSTEMS***

BROADCASTING DIVISION THE MARCONI COMPANY LTD., CHELMSFORD, ESSEX, ENGLAND

BI9R

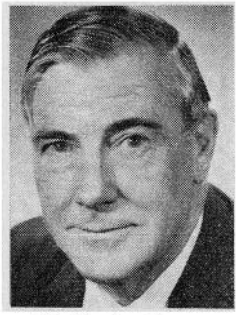
PREFACES *Continued from page 4.*

Let us hope that in a not too distant future the grave problems of illiteracy and lack of instruction will be overcome. In this all-important struggle, sound broadcasting and, consequently, television, are bound to play a major role in defeating Darkness.

It would indeed be desirable that all men were in the position to hear and understand the voices of all other men in all other parts of the Globe.

To this end, undoubtedly *World Radio and Television Handbook* is playing a remarkable role, and I therefore would like to send its Publishers my heartiest congratulations and good wishes.

MARCELLO RODINO DI MIGLIONE
Managing Director of
RAI—Radiotelevisione Italiana



Sir Charles Moses

After more than 33 years with the national broadcasting organisation of Australia, the ABC, and 28 years as its chief executive I can look back at the many developments that have taken place and the people who have been responsible for them—people from all over the world.

Since the war many nations, particularly in Asia and Africa, have achieved their independence and with it have become possessors of their own broadcasting organisations. Their emergence to nationhood has given them, understandably and commendably, a desire to become members of various international groups where their voices may be heard and their aspirations realised.

It is natural that the new national broadcasting organisations should wish to form themselves into appropriate regional associations similar to the EBU and OIRT. Unions have been formed in recent years in South America and in Africa and we hope that during the next few months the Asian Broadcasting Union will be firmly established. Initial steps to form this association of countries of Asia and the Pacific were taken by NHK of Japan at a conference called in Tokyo in 1956. Two more conferences were held in Tokyo in 1958 and 1960 and a fourth at Kuala Lumpur in 1962 where the decision to establish the Union was finally taken.

And now there is a proposal—with which the ABC is proud to have been associated—for a world conference of all these regional broadcasting unions on the initiative of, and under the aegis of the E.B.U. This is great news indeed. The year 1964 should see broadcasting history being made. I am sure it will see the long established and, more powerful broadcasting organisations realising more fully that theirs is the privilege as well as the responsibility to assist, by training staff and by providing programmes, their younger colleagues.

The countries in our part of the world are already taking positive steps towards an increased exchange of programmes. On our own television last night I watched with interest a fascinating documentary on Korean ceramics. I wondered if perhaps at the same time people of another Asian country were looking at an ABC film about my country and its way of life.

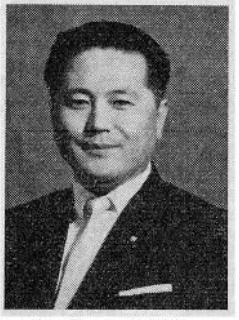
Imagine what could be accomplished in the fields of international understanding and technical development if all the organisations listed in this edition of the World Radio TV Handbook were able to exchange ideas regularly round a conference table.

What the nations in our part of the world are beginning to achieve for their mutual benefit by the closer links we are cementing is a pointer to what a genuine world organisation might achieve for all mankind.

This publication, the *World Radio TV Handbook*, itself should be an inspiration even to the least imaginative of men who through its pages work for a world organisation which would seek, through radio and television, to wipe out ignorance and illiteracy and to strive for a greater understanding between the nations of the world.

May the *World Radio TV Handbook* long enjoy its well-won status and continue to provide us all with an invaluable aid for our work.

CHARLES MOSES
Dir. Gen. of Australian Broadcasting Commission



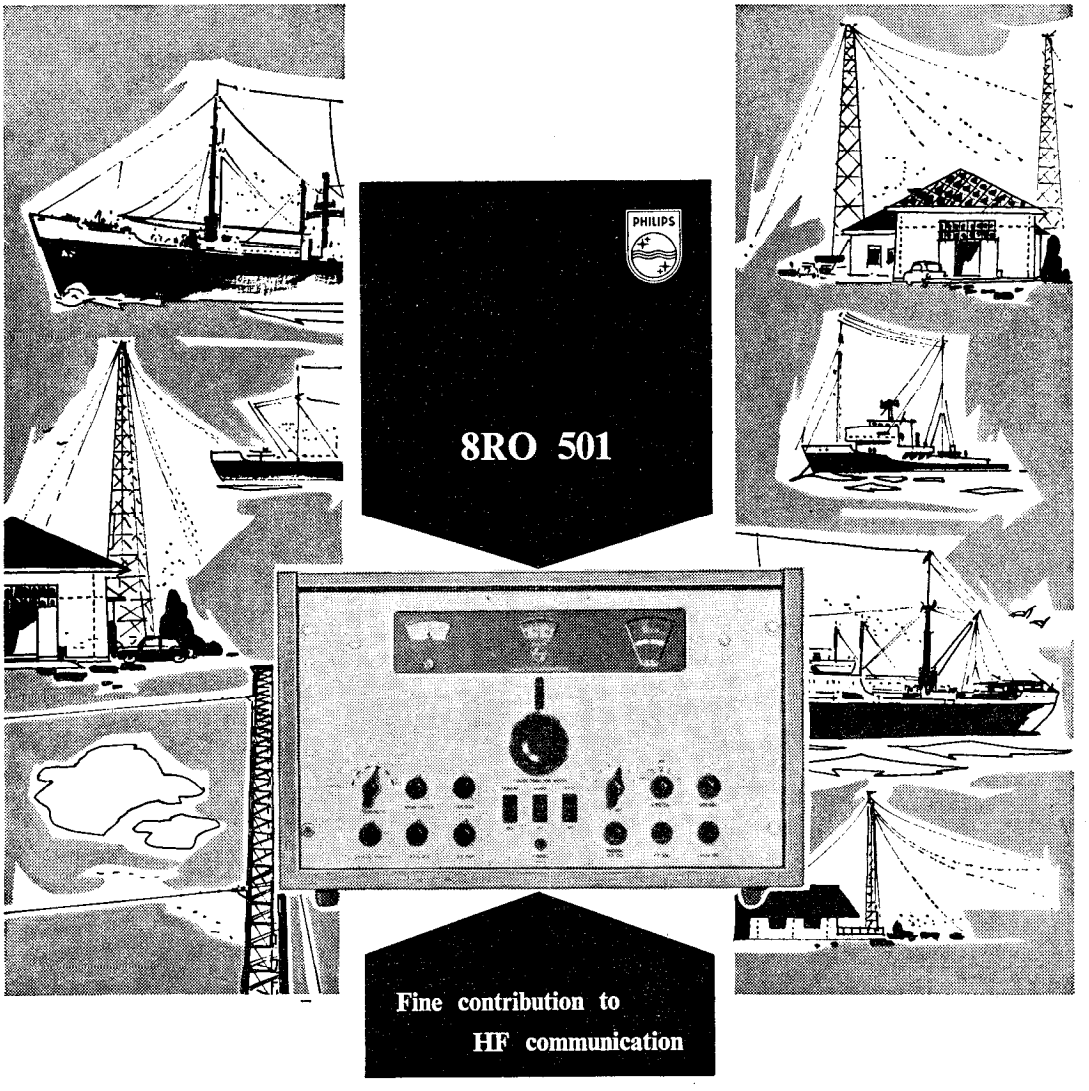
Dr. Seong Hi Yim

The Asian Broadcasters' Conference has, as its primary ideal, the promotion of mutual understanding and friendship among the family of nations in Asia which will surely create a new history in a rapidly changing world. In this ideal, although a young endeavor, it has already shown astoundingly marked successes. Those of us who are deeply involved with broadcasting in Korea continue to be strongly impressed with the outstanding and growing achievements of Asian Broadcasters' Conference, which is the primer of this great epoch.

The role of broadcasting, and the part it plays in promoting national ideals, as well as unifying people for a common positive purpose has long been recognized. It is, without doubt, the single most important medium of mass communications in our ever shrinking world. It has been used not only to inform but to create an aura of public confidence by mirroring and bringing to reality the general aspirations of the people. It has served as a vehicle to create vast new images within the domains of human culture as well as human needs. Broadcasting reaches its apogee as a means to bridging both physical as well as cultural distance. In this form the medium makes the greatest contribution to supreme efforts for world peace. It serves to transmit and magnify the common cultural aspiration, called "great humanity".

This conference is, therefore, not only of vital importance in itself, but a means towards creating a spirit of harmony among us, and as such, it ranks among the foremost in international forums. I must also touch, albeit briefly, on the associated aspect of the Audio-Visual arts. They too make a contribution of vital import.

DR. SEONG HI YIM
Chairman of ABC
Minister of Public Information
Continued page 8.



RELIABILITY COMES FIRST ON THE DIAL OF THIS RECEIVER

Again Philips present a new double superheterodyne specially for coast stations, postal and telecommunication administrations, press agencies, ships, aviation and the army. In price the 8RO 501 comes between the simple communication receivers and the more expensive specialized receivers. Nevertheless it possesses various properties which are normally found only in the costiest receivers, e.g. great sensitivity, very high selectivity and motorassisted tuning. The 8RO 501 is completely reliable and easy to operate. We shall be glad to send you full details upon receipt of your enquiry.

PHILIPS over 40 years'experience in radio communication

1773-E

N.V. Philips' Telecommunicatie Industrie, Hilversum, The Netherlands

PREFACES *Continued from page 6.*

José Luis Fernández

Soundbroadcasting has various general aims which hold good in all countries: dissemination of information, culture and entertainment. In addition there is the commercial connection of broadcasting, but it has nothing to do with this. Naturally it is not a big problem to understand what information work is: to inform everything of general interest, but we must emphasize: OF GENERAL INTEREST. This obligation, which we may consider the primary one in sound broadcasting, implies that scandals, and such like, must be avoided. As radiobroadcasting is a service for the benefit of the people and for the purpose of increasing their well-being, this aim would be betrayed, if—instead of contributing to the common well-being and collective tranquility—general discomfort is aroused.

Cultural elevation should be the common denominator for all broadcasts. Any subject, however trivial, may contribute to this purpose if it seeks the constructive, the moral, the exemplary, the sane, the just, and the beautiful. The low passions, vices, crimes, and anti-social subjects are the basest of evils.

It is always easy to educate and cultivate the people by means of broadcasts; but in this respect we must not deceive ourselves or, particularly, others. If we analyse frankly without trying to make an excuse I am sure that we shall arrive at satisfactory conclusions. But it is not enough to desire that, we must do it right away.

Entertainment is basic in our task because it gives to the majority of people amusement and expressions of art which, before the radio came, they could not get; but this work of entertainment, which lifts the spirit and makes life better, must satisfy the requirements of culture. When we choose we must use the same rigorous judgment that we use when choosing entertainment for our family.

Broadcasting is, in every country, an activity which, more than any other, aims at contributing to the gradual but definite solution of fundamental problems. It must therefore discover the national problems that need urgent resolution—in order to use its powerful influence towards unifying all men and women.

Unhealthiness. We must fight this with simple hygienic standards for our big masses. A population with hereditary or acquired burdens will never be suited for education or for work. In a word—it will be unable to progress.

Then comes *education.* We owe the people some support to the work of their teachers. Let us inculcate standards of duty, patriotism, and good behaviour.

Such a terrifying medium is in our possession and we must employ it with a great sense of responsibility.

LeRoy Collins, President of the National Association of Broadcasters of the United States, has said that every profession requires adequate preparation, competent action and good conduct by the person in question. All these requirements are applicable to radio-broadcasting, but there are more.

In fact, from the moment when our activity is one of public interest and everybody recognizes it, the profession of radio-broadcasting assumes the subordination of the private interest in favour of this collective interest.

In trying to orientate our transmitters we must always ask: Does this broadcast contribute to the collective well-being in some way? Or, conversely does it constitute a danger, does it do any harm, or is it, perhaps, somewhat negative?

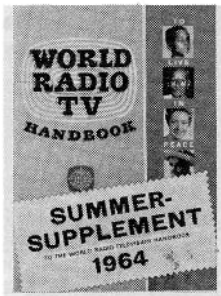
If we carry out this analysis in good faith our work will be in no doubt. If we do not have these basic virtues we do not deserve the honour of being broadcasting people.

Unfortunately we have enemies who would like to see the disappearance of our industry as it exists today. Our best defense will always be the true and social utility which our services signify, and the favourable judgement which the collective idea obtains from these services.

JOSÉ LUIS FERNÁNDEZ

President of la Asociación Interamericana de Radiodifusión

SUMMER SUPPLEMENT 1964



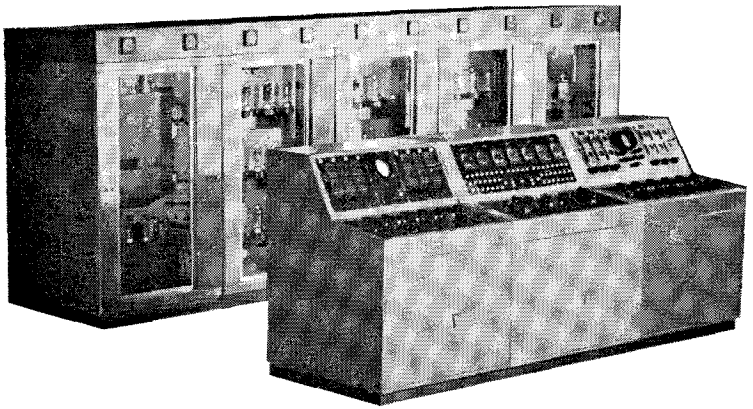
With this up-to-date guide, you can have as much pleasure monitoring shortwave during the summer as you do the other seasons of the year. Many broadcasting stations revise their schedules for that period. The 1964 Summer Supplement – issued in June 1964 – will contain hundreds of changes in time schedules and programming and will bring your World Radio Television Handbook 64 right up to the minute including the summer schedules of the major broadcasting and shortwave stations. So there is no need to give up your hobby during that time. You can still monitor the many important stations around the world which are usually received with good volume at certain times of the day throughout the summer and autumn season.

There are approximately 45 pages of program details on thousands of stations and in addition you receive a complete up-to-date table of shortwave stations in the world. To make sure of getting your copy, we suggest that you order early, as only a limited number of the Summer Supplement will be available.Price: Da. Kr. 11.00, $ 1.50, £ 0/11/0, DM 6.00, Sw. Kr. 8.50, plus transport: Da. Kr. 0.80, $ 0.15, £ 0/1/0, DM 0.55, Sw. Kr. 0.50.

World Publications, Lindorffsallé 1, Hellerup.

CONTINENTAL ELECTRONICS BROADCAST EQUIPMENT

FIELD-PROVEN AM TRANSMITTERS 5,000 TO 1,000,000 WATTS - HF & MF



TYPE 420A 500,000 WATT AM HF BROADCAST TRANSMITTER

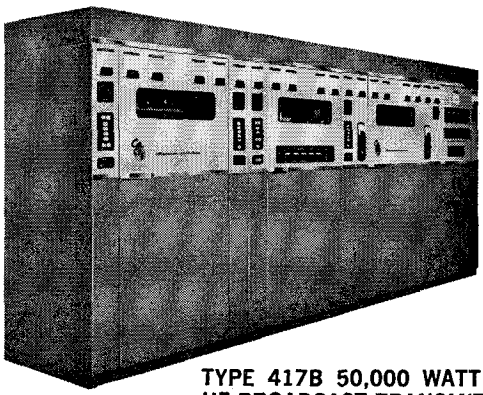
Designed for operation in the International short wave broadcast band, the Type 420A 500,000 watt transmitter consists of two Type 419A 250,000 watt transmitters which are combined to provide 500,000 watts of carrier power. Six of these 500,000 watt transmitters are used in the Voice of America Consolidated East Coast Facilities near Greenville, North Carolina. Four Continental Type 419A, 250,000 watt transmitters were installed near Barcelona, Spain, in 1960.

HF TRANSMITTERS

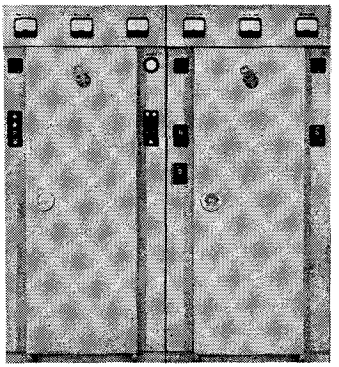
TYPE	POWER
423A	1,000,000 WATTS
420B	500,000 WATTS
419B	250,000 WATTS
418A	100,000 WATTS
417B	50,000 WATTS
416C	10,000 WATTS
415B	5,000 WATTS

MF TRANSMITTERS

TYPE	POWER
323B	1,000,000 WATTS
320B	500,000 WATTS
319B	250,000 WATTS
318A	100,000 WATTS
317B	50,000 WATTS
316B	10,000 WATTS
315B	5,000 WATTS



TYPE 417B 50,000 WATT AM HF BROADCAST TRANSMITTER



TYPE 416B 10,000 WATT AM HF BROADCAST TRANSMITTER

HOW TO USE THE WORLD RADIO TELEVISION HANDBOOK

The World Radio Television Handbook is designed to help the international radio listener obtain maximum enjoyment from his receiver.

The first section of the Handbook contains instructive articles relating to broadcasting, information regarding broadcasting and television organizations, and popular technical articles and tables of practical value to listeners.

The main section of the book (pages 80—220) contains detailed information, by country, of the **Radio Broadcasting Stations** and broadcasting organizations of every country in the world, including names and addresses of broadcasting companies, names and titles of leading officials, lists of broadcasting stations in each country, including frequencies, wavelengths, transmitter power, call signs (if used), and station names. Program information is also listed, including times, frequencies, and beam areas of the broadcasts in each language. The announced **location** of the st., rel. st's exc., is usually the studio and administrative location, since the tr's are often located in outlying areas.—**Power** is stated in kilowatt (kW) or Watt (W). When two powers are listed, the figures represent the lower and upper limits of power, where a station uses more than one tr. on the frequency at different times (s.w.) or varies the power of the tr. for day and night operation (m.w.).

A **listing by frequency and wavelength** of the shortwave stations of the world, and long and medium wave stations of Europe, North Africa, Near East is presented in the last part of the Handbook, for use in facilitating the identification of stations.

Abbreviations: See page 74 for explanation.

Short-wave stations may be used either for domestic broadcasting to listeners in the same country or for international broadcasting directed to listeners in other countries.

International short-wave stations usually employ directional antennas to beam their programs to particular areas on frequencies calculated for best reception. Most international broadcasts are scheduled for the evening hours in the intended reception area, but some are in the morning or at other times during the day. The reception areas give their names to the services: European Service, Far Eastern Service, North American Service, etc. Languages employed are those of the listeners in the area to which the broadcast is directed, also the language of the transmitting country for reception by persons understanding that language.

Best reception is usually obtained from transmissions directed to your area. However, there is a considerable amount of overlapping between many service areas and, therefore, it is often possible to obtain good reception of programs beamed to adjacent areas, and sometimes, even of programs directed to distant parts of the world. Shortwave propagation conditions change continually because of the influence of daylight and darkness, seasonal effects and solar activity. Consequently, good reception requires frequency change from time to time.

Domestic short-wave stations are usually of lower power than international stations, and generally use non-directional or wide beam antennas, in order to reach local or national audiences. These stations make fewer seasonal frequency changes, and many operate on the same channel for both day and night operation. The stations are utilized to reach areas of a country where coverage by medium and long wave stations it not adequate.

Long and Medium wave stations are used mainly for transmitting programs to listeners in the country in which the stations are located. These stations vary from powerful transmitters capable of being heard throughout the country to low power stations intended only for a small area in the vicinity of the transmitter.

FM (Frequency Modulation) Stations operate on very high frequencies (VHF); ranges of 88-108 Mc in the Americas and 87-100 Mc in other areas, and provide interference-free reception over a short radius. Most FM stations relay of programs of a medium or long wave station.

Frequency and Wavelength — Frequencies are measured in kilocycles per second (kc/s) and megacycles per second (Mc/s). A kilocycle is 1000 cycles. A megacycles is 1000 kilocycles. Wavelengths are measured in meters.

A formula between frequency and wavelength is as follows: Frequency (kc/s) $\times$ Wavelength (m) = 300000. Wavelength (m) $= \frac{300000}{\text{Frequency (kc/s)}}$ and Frequency (kc/s) $= \frac{300000}{\text{Wavelength (m)}}$.

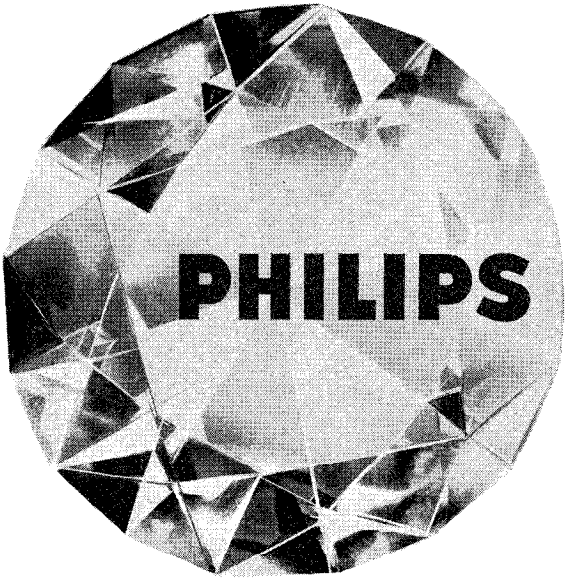
Due to the propagational conditions, interference by other stations, jamming, malfunction of transmitter, reallocation of frequencies by a country or convention, or for some other reason, stations may use frequencies which are at variance with the frequency(ies) indicated in this handbook.

Program times used in the listings are based on the 24 hour clock. Midnight is 00.00 hours, 3 a.m. is 03.00 hours, 9 a.m. is 09.00 hours, and midday is 12.00 hours. Then, instead of starting another 12 hour cycle (p.m.), under the 24 hour system the hours increase until midnight. Thus 3 p.m. is 15.00 hours, 10 p.m. is 22.00 hours, and so on until 23.59 (11.59 p.m.) is reached and a new 24-hour cycle starts. This system eliminates any confusion between times a.m. and p.m.

Time Conversion: All programs are listed in GMT (Greenwich Mean Time). To convert from GMT to your local time, refer to the World Time Table on page 64 to determine how many hours your time is ahead or behind GMT, and add or subtract that amount in order to convert to your clock time. For quick conversion, it is useful to write the GMT hours, 00 to 24, down on one side of a sheet of paper, and then enter the correct local time opposite each GMT hour. Summer time or Daylight, Saving time, adds an hour to local time, so this should be taken into account in countries where it is utilized.

Program schedules: The program schedules of many countries are divided into Home Services and Foreign Services. The Home Service programs are arranged by language and by program services or networks. The Foreign Service transmissions are generally arranged by beam area, and by language for each beam area. The times and frequencies of the programs in each language are listed together, in order to facilitate the determination of the times and frequencies of the broadcasts in each language. The times of news broadcasts and other program features are also included.

Therefore, if you wish to hear a broadcast in a particular language from a country, refer to the listing for that country of the time and frequency of broadcasts in that language. Most broadcasts are transmitted on more than one frequency, so try the various frequencies listed, to determine which one is received best at your location.



the many facets of a world-wide industry

For many decades already Philips' electronic component parts have been chosen by a great number of prominent industries.
Why? A simple question to there are many answers. Because the name Philips stands not only for a versatile and ever increasing product range of standard quality. It's more than simply that. It means profound research and development tuned to the demands of industry. It includes the most advanced manufacturing methods resulting from years and years of experience. And just as important facets - although less obvious - are the facilities of a world-embracing organisation: exchange of know-how on a vast international scale, thorough application engineering service, extensive product information, and factual aid.
And all these facets may be considered against the background of a policy of present stability and future continuity.
Thus emphasizing that...

GEN-30.63

trust in **PHILIPS** is world-wide

HOW TO USE *Continued from page 10.*

Identification of Stations: Most stations in Europe, Middle East, Africa and Asia identify by announcing their station name and location. Most stations in North America and Oceania identify by the use of a call sign of three to five letters or a combination of letters and figures, of which the first, or firts two, denote the nationality in accordance with the international list of prefixes. Most stations in Latin America use a call sign (sometimes not frequently announced), a station name, and location.

In addition, many stations use musical interval signals at sign on and between programs, in order to help listeners to find the station on their dial and identify it as the desired station. These interval signals are included in the country listings.

How to Identify a Station by Frequency or Wavelength: When you hear a station that is unknown to you, first try to determine some clue to its identity by attempting to determine the language, noting the type of program, etc. Then, note the approximate frequency or wavelength indicated on your dial, and turn to the table "Short-wave Stations of the World" in the back of the Handbook, and ascertain what stations operate in that vicinity. Next, check the program listings to determine which of the stations are scheduled to operate at that time of day, and which are most likely to be audible at your location, depending on the power and distance away. For definite confirmation, it is desirable to wait for station announcement or interval signal.

Frequency Changes: The frequencies listed are those which were scheduled for use at the time of publication. However, due to a number of reasons, including interference and changes in propagation conditions, it may be necessary for a country to make frequency changes. Often only one of the frequencies on a program will be changed, so the new frequency can be determined by tuning in the other frequencies and listening for the announcement of the frequencies being used. Reference to a publication listing the latest frequency changes, such as the World Radio Handbook Bulletin (issued fortnightly) or a monthly short-wave listeners publication issued in your country, is also helpful.

Interference: Due to the present crowded condition of the medium and short wave broadcasting bands, interference may be encountered from other stations operating on the same or closely adjacent frequency. In addition to interference from other broadcast stations, there may also be interference from "jammers", which transmit a variety of noises in an attempt to prevent certain foreign broadcasts from being heard in the country operating the jammers. When interference is encountered, try another of the listed or announced frequencies, if several are in use, or try a broadcast at another time. See also article "Interferences" page 42.

Reception from Hard-to-Hear Countries: If you wish to hear a station or program from at particular country, refer to the listing from that country, determining first whether it has any broadcasts beamed toward your area or adjacent areas, if not, refer to the frequency, time and power listing to determine where and when reception might be possible. Also, note the bands and times when stations in other countries in that part of the world are audiable. It is possible to hear many far distant stations, even if they do not beam programs to your area, by listening when the propagation and clearness of channel conditions are favorable.

Verification by QSL-cards: As indicated in the program listings for the various countries, many stations are interested in receiving reports from listeners about their transmissions. These stations acknowledge reports by sending listeners a QSL card (verification) or letter. Most **international** broadcasting stations do not require enclosure of return postage and will reply with a QSL card or letter. **Domestic** broadcasting stations do not normally request reports from foreign listeners, so return postage should be sent with reports to these stations. Return postage should be sent in the form of an International Reply Coupon, obtainable at post offices in most countries. Reports should be sent to the station address given in the country listings. They can be written in English in most cases, but Spanish is preferred by South and Central American stations.

Reception reports are useful to radio engineers in selecting the most suitable frequencies for broadcasts beamed to your area. Reports are preferred in the SINPO code, which is as follows:

S (Signal Strength)	I (Interference)	N (Noise)	P (Propagation Disturb.	O (Overall Merit)
5 excellent	5 nil	5 nil	5 nil	5 excellent
4 good	4 slight	4 slight	4 slight	4 good
3 fair	3 moderate	3 moderate	3 moderate	3 fair
2 poor	2 severe	2 severe	2 severe	2 poor
1 barely aud.	1 extreme	1 extreme	1 extreme	1 unusable

The publication "How to listen to the world" includes information about how to write a report to the stations, in the different languages.

Information about **Television Stations** is provided in the section following the sound radio section, including names and addresses of Television companies, location, power and channel of Television stations, and program schedules of these stations.

With reference to the first Television page we give a short explanation of some of the technical words and figures mentioned — The announced **location** of the station is usually the studio location, since most TV tr's are situated upon the highest location in the area in order to obtain more widespread coverage — Two systems of **modulation** are used to transmit the audio signal of the TV st's either frequency modulation (FM) or amplitude modulation (AM). All video transmissions are normally amplitude modulated — **Polarization** signals are horizontally polarized (H) or are vertically polarized (V). Polarization is usually selected according to the need for a reduction of interference with other stations, or to obtain engineering standards as required by the government of the country in which the st. is located — The **band width** is shown in kc's and represents the limits within which both the video and audio tr. are contained — **Number of lines** transmitted express the number necessary to form one complete frame or picture, and **frames** state the number of times per second the picture area is completely scanned — **Video and Audio Power** is indicated in kilowatt (kW) or Watt (W). In the most cases the figures denote the effective radiated power (ERP) due to the stations antenna system — **Video and Audio frequency** is stated in kc per sec. The relationship between the quoted figures and the limits of the video band varies among countries and can be determined by reference to the standards of the systems used by the resp. countries.

Read our message page 129, which contains a list of our other Standard Handbooks, which will help you to improve your shortwave and television reception.

Summit Meeting

President . . . Ambassador . . . Executive . . . Diplomat . . . the "Solid Statesmen" of broadcasting. All from Gates. As transistor audio control consoles of a new era, they stand out in the crowd . . . combining the space age quality and reliability of solid-state devices with versatile control facilities for future expansion.

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INTERNATIONAL BROADCASTING LISTENING

by

John H. Gayer and Willi Menzel

of the International Frequency Registration Board (I.F.R.B.) I.T.U.

Geneva . Switzerland

The Administrative Radio Conference, in 1959, adapted new provisions gouverning the use of all frequency bands, not only with regard to high frequency broadcasting, but television and other broadcasting services in the low, medium, high and VHF/UHF frequency ranges. These regulations are supplemented by regional agreements and plans, or bilateral or multi-lateral agreements.

In the low, medium and VHF broadcasting, particular frequencies are assigned to particular stations on a continuous basis. Frequencies should be assigned so that different stations can use them at the same time, in a way that interference does not occur. This is not always possible, especially in the low and medium frequencies in areas with many different countries where congestion in the use of the bands occurs. There is also interference to broadcasts in the short-wave bands, to congested areas at popular listening hours. Frequencies in the 4 and 5 Mc/s bands allocated for the broadcasting service in the tropical zones are generally assigned to particular stations for specific hours of transmission.

The bands exclusively allocated to the short-wave broadcasting service, unlike the operation in low, medium, tropical VHF and UHF bands are used in a flexible way, so that the varying propagation conditions and the schedules of broadcasting organizations can be met. The coverage and conditions of the service vary greatly with the frequency, time of day, season and solar cycle. Countries are continuously changing and extending this broadcasting service, therefore, it is difficult to prepare an international assignment plan. The need to have an orderly use of the bands requires an international procedure which makes it possible for administrations and broadcasting organizations to know in advance all seasonal schedules that are proposed (four seasons per year).

This is provided for by Article 10 of the Radio Regulations according to which Administrations must notify their schedules in advance so that the I.F.R.B. can publish a complete schedule of the proposed frequency usage of all countries and the conflicts in the use of frequencies will also be known in advance and attempts can be made to find interference free frequencies for each service. The proposed use of frequency usage often changes from season to sason and in some cases even during a particular season.

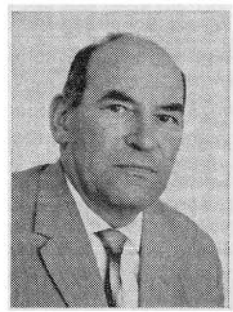
One important advantage of this procedure is the flexibility permitted in the use af frequencies, so that the difficulties of propagation and interference are met.

As guidance to listeners, it is to be noted that the transmission of long programmes which are repetitions of local medium-wave programmes, are generally to be found on the same frequencies for the different seasons, year after year. The broadcasts are generally with a non-directive transmitting antenna in the 6 and 7 Mc/s bands. Broadcasts with special programmes are generally made to specific reception areas. These broadcasts are short, sometimes for even only fifteen minutes or less. These broadcast programmes are carefully produced; therefore broadcasters try to avoid failures of reception and often transmit in more than one band. The service is well engineered as to technical characteristics, frequencies and even the time when transmisisons are made.

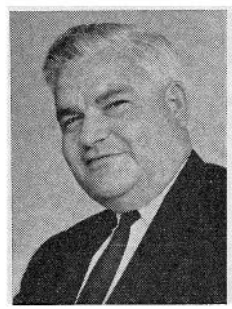
The change of frequencies causes trouble and inconvenience to listeners. The wanted broadcast has to be searched for and, regrettably, the listeners may, in some cases, find that from one day to the next day the frequency and even the frequency band may be different. Listeners refer to available programme schedules to try to obtain information on frequencies which are used. The schedules of course are not available to everyone and do not contain the latest shifts of frequencies.

A High Frequency broadcasting frequency list of stations without hours, transmission characteristics or reception zones is incomplete and not sufficient information for listeners. Unfortunately, many broadcasting organizations publish their programmes with only the frequency or meter bands which they intend to use. The listeners must find the broadcasts in the bands. Short-wave listening thus becomes rather complicated, which is not facilitated by the characteristics and construction of the average listener's receiver.

Short-wave listening is an informative, educational and interesting means of mass communication. It is also a kind of "sport fishing"—when one considers what a listener must do to find the stations with the programmes he wants to hear. However, he thus realises pleasure of listening to the programme and as is the case with radio amateurs, of success in finding the programme he wants to hear—unfortunately the quality of reception due to the characteristics of short-waves, and interference may not be as the broadcasters or the listeners want but everyone can hope the efforts that are being made to improve the service will be successful.



Willi Menzel



John H. Gayer

RAI - RADIOTELEVISIONE ITALIANA

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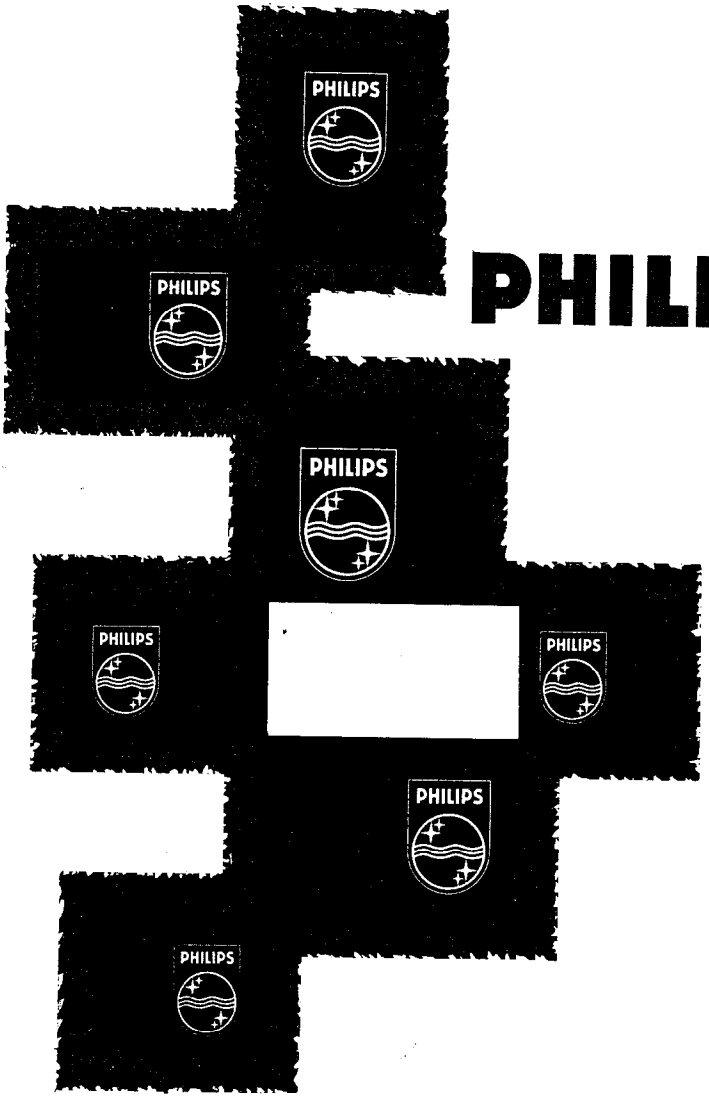

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Colour Television equipment for Studios and TV laboratories

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Pick-up heads
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Measuring equipment for radio and TV Service

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INTERNATIONAL BROADCASTING AND TELEVISION ORGANIZATIONS

Left: O. Rydbeck, Director General Swedish Broadcasting Corpo. and President of the EBU.

Left: István Tömpe, President for OIRT, Director General of the Hungarian Broadcasting and Television.
Right: Lic. José Luis Fernández, President Asociacion Interamericana de Radiodifusion (AIR)

Left: Diallo Alpha, President of URTNA, Director General Information and Tourism, Republic of Guinea.
Right: Gerald C. Gross, Secretary General Internatonal Telecommunication Union (ITU), Geneva, Switzerland.

Left Dr. Seong Hi Yim, Chairman Fifth Asian Broadc. Conference, Chairman of ABC; Minister of Public Information, Rep. of Korea.
Right: Tor Gjesdal, Director Dept. of Mass Communications, Unesco.

EUROPEAN BROADCASTING UNION (E.B.U.) UNION EUROPEENNE DE RADIODIFFUSION (U.E.R.) EUROVISION

Seat and Administrative Office: 1, rue de Varembé, Genève.
Technical Centre: 32, av. Albert Lancaster, Bruxelles.
Monitoring Centre: Jurbise (Belgium).
International Coordination Centre for TV Programme exchanges (Eurovision): Palais de Justice, Bruxelles.
Administrative Council. President: O. Rydbeck, Director-General, Swedish Broadcasting Corporation. Vice-Presidents: M. Rodinò, Director-General, RAI-Radiotelevisione Italiana. H. Carleton Greene, Director-General BBC-British Broadcasting Corporation.
Administrators: Representatives of the broadcasting organizations in: Austria, France, Germany (Fed. Rep.), Italy, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom (BBC) and Yugoslavia.
Director: Ch. Gillieron. **Legal adviser:** Georges Straschnov. **Director of the Technical Centre:** Georges Hansen.
Active Members: The broadcasting organizations of: Austria, Belgium, Denmark, Finland, France, Germany (Fed. Rep.) incl. Zweites Deutsches Fernsehen (Fed. Rep.), Greece, Iceland, Ireland, Israel, Italy, Lebanon, Luxembourg, Monaco, Netherlands, Norway, Portugal (ENR, RTP), Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom (British Broadcasting Corporation, ITA and Independent Television Companies Association Ltd.), Vatican State, Yugoslavia.
Associate Members: The broadcasting organizations of: Australia (ABC, Federation of Australian Commercial Television Stations, Brazil (Diaries Associados Ltda.), Burma, Canada (CBC), Ceylon, Congo (Léopoldville), Dahomey, Federation of Rhodesia and Nyasaland, Gabon (Radiodiff. nationale gabonaise), Ghana, Haiti, Ivory Coast (Radiodiff. de la Rep. de Cote d'Ivoire), Japan (NHK and NAB), Kenya (Kenya Broadc. Corp.), Morocco, New Zealand, Nigeria, Pakistan, Republic of South Africa, Tanganyika (Tanganayika Broadc. Corp.), United States (ABC, CBS, NAEB, NBC, NETRC and BFA, US Information Agency), Upper Volta.
Publications: E.B.U. Review – every month in English and French, published in two separate parts: A (Technical) and B (General and Legal) – Long and Medium wave reports (Europeans Area) – Short wave reports.

INTERNATIONAL RADIO AND TELEVISION ORGANIZATION – OIRT

Addr: 15, U Mrázovky, Prague 5, Czechoslovakia.
Cable: Interadif, Praha.
Nature: International organization dealing with practical and theoretical questions connected with broadcasting and television prgr's and technique and cooperation between broadcasting and television organizations.
Governing Body: General Assembly consisting of one representative for each active member.
Administrative Council: Consisting of 7 to 13 members, Chairman for 1963–1965: István Tömpe, President of the Hungarian Radio and Television. Vice-Chairmen for 1963–65: R. Kane, General Director of the Radio and Television Organization of the Republic of Mali, and Z. Zunduy, President of the Information and Radio Administration of the Mongolian P.R.
Members: Representatives of the Radio and Television Organizations of the Bulgarian P.R.; Finland; Hungarian P.R.; Latvian SSR; Republic of Mali; Mongolian P.R.; Chinese P.R.; Czechoslovak S.R. and the U.S.S.R.
Members: Radio and Television Organizations of: The P.R. of Albania; Byelorussian SSR; P.R. of Bulgaria; Chinese P.R.; Rep. of Cuba; Czechoslovak S.R.; United Arab Rep./ Egypt; Estonian SSR; Finland; German Democratic Rep.; Hungarian P.R.; Iraq; Korean People's Democratic Rep.; Latvian SSR; Lithuanian SSR; Rep. Mali; Moldavian SSR; P.R. of Mongolia; P.R. of Poland; Rumanian P.R.; Ukrainian SSR; Union of Soviet Socialist Rep.; P.D.R. of Vietnam.
Facilities: Administrative Office and Technical Centre, Prague, Czechoslovakia.
Specialized Commissions: Technical Commission: Chairman K. Kozlowski, Polish P.R.; Radio Prgr. Commission: Chairman: representative of the Radio and Television Organization of the German Democratic Rep.; Television Prgr. Commission and Intervision Council: Chairman: N. A. Skachko, Ukrainian SSR.
Publications: Review of the International Radio and Television Organization (OIRT) "Radio & Television" in English, French, Russian and German, issued every two months. Monthly OIRT Information, and quarterly Catalogues of prgr's suitable for exchange: a) radio, b) television.
Meetings: General Assembly every two years, Administrative Council every one year.
Relations with all important organizations active in the field of radio and television.

ASOCIACION INTERAMERICANA DE RADIODIFUSION (AIR)

President: The Mexican Broadcaster Lic. José Luis Fernández. Address, Paseo de la Reforma 1310, Mexico 10 D.F., Mexico. Vice Pres's: Sr. Fernando Eleta A. (Apdo 1795, Panamá), Sr. Lic. Félix Cardona Moreno (Apdo 3955, Caracas, Venezuela). Secr: Sr. Boris Eserski (Apdo Postal 720), Edificio Palomo, San Salvador, El – Salvador).
AIR is an association of the broadcasting corporations of the American countries. Founded in 1946 it represents more than 5000 broadcasting and 400 television stations. Its purpose is to preserve free and stable broadcasting, promote cooperation between broadcasting corporations and the public authorities, to raise the cultural level of the peoples, to work for the preservation of freedom of utterance and instruction and a closer feeling of association between the private broadcasting corporations on the American Continent. AIR has agreed with Sociedad Interamericana de Prensa about the revision of the so-called Panama Doctrine for the purpose of increasing the practical effectiveness of that pact and of making it a permanent means of defence for the preservation of democratic principle. AIR is recognized by the United Nations and collaborates with UNESCO, with the International Union of Telecommunications and with the organization of the American States. AIR has subscribed to the "Panama Doctrine" in which the American Radio and Press declare themselves united against any attack on individual liberty and restriction of the freedom of utterance. During the current year the institution has had intensive activity in defense of freedom of information in connection with events occurring in several countries.

Continued page 20

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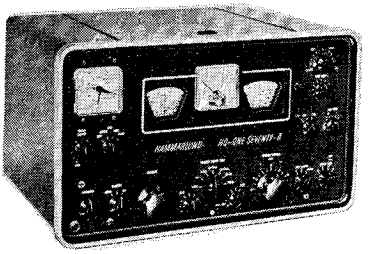

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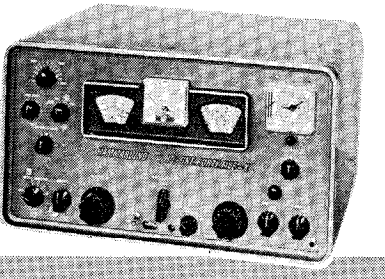

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INTERNATIONAL BROADC. ORG.

Continued from page 18.

1. session of the Administrative Council of URTNA in Dakar, Senegal. 30 th july 1963.

INTERNATIONAL TELECOMMUNICATION UNION

Addr: Place des Nations, Geneva, Switzerland. Te: 34.80.00.
Secretary-General: Gerald C. Gross, USA.
Intern. Frequency Registration Board (IFRB). Chairman: Mohamed N. Mirza, Pakistan.
Intern. Tel. & Tel. Consultative Committee (CCITT). Dir: J. Rouvière, France.
International Radio Consultative Committee (CCIR). Dir: (vacant), Acting Dir: Leslie W. Hayes, United Kingdom. Study Group X (broadcasting), Chairman: A. P. Walker, USA; Study Group XI (Television), Chairman: E. Esping, Sweden; Study Group XII (Tropical Broadc.), Chairman: N. V. Gadadhar, India.
Administrative Council: Argentina, Australia, Brazil, Canada, China, Colombia, Czechoslovakia, Ethiopia, France, Germany (Fed. Rep. of), India, Iran, Italy, Mexico, Morocco, Philippines, Spain, Switzerland, Tunisia, United Arab. Rep., United Kingdom, United States, USSR, Yugoslavia.
Membership (122 Members, 2 Associate Members): **Members:** Afghanistan, Albania P.R., Algeria R., Saudi Arabia Kingdom, Argentine R., Australia, Austria, Belgium, Bielorussian USSR, Burma Union, Bolivia, Brazil, Bulgaria P.R., Burundi Kingdom, Cameroon Fed. R., Canada, C. African R., Ceylon, Chile, China, Cyprus R., Vatican State, Colombia R., Congo R. (Brazzaville), Congo R. (Leopoldville), Korea R., Costa Rica, Ivory Coast R., Cuba, Dahomey R., Denmark, Dominican R., El Salvador R., Terr. represented by the French Overseas Post and Telecomm. Agency, Ecuador, Spain, USA, Ethiopia, Finland, France, Gabon R., Ghana, Greece, Guatemala, Guinea R., Haiti R., Upper Volta R., Honduras R., Hungarian, India R., Indonesia R., Iran, Iraq R., Ireland, Iceland, Israel (State of), Italy, Jamaica, Japan, Jordan (Hashemite Kingdom), Kuwait, Laos Kingdom, Lebanon R., Libya Kingdom, Liechtenstein (Principality of), Luxembourg, Malaya Fed., Malagasy R., Mali R., Morocco Kingdom, Mauritania (Islamic R.), Mexico, Monaco, Nepal, Nicaragua, Niger R., Nigeria Fed., Norway, New Zealand, Uganda, Pakistan, Panama, Paraguay, Netherlands Kingdom, Peru, Philippines R., Poland P.R., Portugal, Sp. Provinces in Africa, Portuguese Overseas, Syrian Arab. R., United Arab R., Fed. R. of Germany, Fed. P. R. of Yugoslavia, Ukrainian USSR, Somali R., Rhodesia and Nyasaland Fed., Roumanian P.R., U.K., Rwanda R., Senegal R., Sierre Leone, Sudan R., So. Africa R., Sweden, Switzerland (Confederation), Tanganyika, Chad R., Czechoslovak P.R., Terr. of USA, Overseas Terr. for the intern. relations of which the Go. of the U.K. are responsible, Thailand, Togolese R., Tunisia, Turkey, USSR, Uruguay R., Venezuela R., Vietnam R., Yemen – **Associate members:** Kenya, Singapore, British Borneo Group.

UNESCO

(United Nations Educational, Scientific and Cultural Organization).
Addr: Place de Fontenoy, Paris 7, France – L.P: Dir. Gen: René Maheu.
Department of Mass Communication: Dir: Tor Gjesdal.
Radio and Visual Information Division: Chief: Jean A. Keim. Deputy Chief: Gerald S. Wade – Regional Units: Jean Bhownagary (Asia). Anatoli Bolgarev (Russian language production). Jean Calvel (French language production). Rex Keating (English language production). Fernando Restrepo (Spanish language production). Gerald S. Wade (North America).
Mass Communication Techniques Division: Chief: Pierre Navaux. Radio and TV techniques: Henry R. Cassirer.

AFRICAN RADIO TELEVISION UNION (URTNA)

(Union des Radiodiffusions & Télévisions Nationales Africaines).
The 1st session of the Administrative Council of URTNA took place in the building of "Assemblée Nationale" in Dakar, July 29th to 31st, 1963. Participants to this important meeting were: MM. Diallo Alpha, Guinea R., Chairman of the Council. Aïoune Falle, Ba M'Baye, Puyhaubert (Sénégal). Fosto (Cameroun). Colleman (Ghana). Edo (Ivory Coast). Ma Dongus, Osakwe (Nigeria). Assan (Tunisia). The United Arab R. was represented by Guinea. The following points have been studied: Installation of the Administrative Center in Dakar – Financial matters (expenses for the Administrative Center were fixed) – Preparation of the 4th General Assembly in Brazzaville on a date to be notified and where shall be designed directors for both Administrative and Technical Centers.
The African Radio and TV Union has been created in May 1960, in Rabat, Marocco with the purpose to develop friendship and cooperation among African States in the fields of broadcasting and television. At the latest General Assembly (Lagos, September 1962), delegations of 32 countries representing almost all independents states in Africa have decided to locate the seat of the URTNA in Dakar (Sénégal) while Technical Center should be located in Bakamo (Mali). The 4th General Assembly will discuss the possibilities to create a news and programs exchanges Agency as well as to increase cooperation with brother-organisations such as European Broadcasting Union and O.I.R.T. – URTNA is also able to represent African States at International Conferences for frequencies, assignements or programs exchanges.
The President for the Union is Mr. Diallo Alpha. Director General Information and Tourism in the Republic of Guinea, Vice-President: Thiam Amadou, Ivory Coast.

ASIAN BROADCASTING UNION THE FIFTH ASIAN BROADCASTERS' CONFERENCE 1963

The Fifth Asian Broadcasting Conference was held in Seoul, Rep. of Korea from 1st to 5th October 1963. The representatives of the National Broadc. Organizations in Australia, Rep. of China, India, Japan, Rep. of Korea, New Zealand, Pakistan, Philippines, United Arab Rep. and Vietnam resolved to recommend to their respective authorities the establishment of the Asian Broadcasting Union (ABU) as from 1st July 1964 and to adopt as constitution **Statutes of the Asian Broadcasting Union.**
The ABU headquarter is established in Tokyo.
In the interim between the conclusion of the fifth conference and the first conference of ABU in 1964 NHK has offered to set up a provisional secretariat with Ichiro Matsui, Man. Dir. of Overseas Broadc. Dept. NHK as Acting Secretary General. The conference resolved to extend and develop the exchange of prgr's in radio and TV, particularly children's prgr's and TV prgr's with a visual emphasis and sound effects recordings and lists of transcriptions.
With the aim of raising production standards the conference resolved to encourage the organizing of a series of prgr. competitions under the auspices of the A.B.U. and to accept the offer of the A.B.C. to organize an annual competition for a Rural Programme.
Because of the importance of the forthcoming Second International Conference of Broadcasting Organizations in Sound and Television School Broadcasting, it was resolved to request member organizations which receive invitations to make every effort to attend.
Because the medium frequency band is extremely congested and several countries of the Asian and Pacific region are having difficulty in securing such channels, it was resolved that a study group with membership: ABC, AIR, BCC, KBS, NHK (Chairman), NZBC, UARBC be appointed with the aim of examining by correspondence technical problems regarding the most effective use of the frequency spectrum for m.w. broadcasting; and that this study group should meet immediately before the next Conference to prepare a report for the Engineering Committee of that Conference.
The Conference resolved to accept with gratitude and appreciation the kind invitation of the ABC to hold the First A.B.U. Conference in Sydney, in the latter part of 1964.

UNIVERSITE RADIOPHONIQUE ET TELEVISUELLE INTERNATIONALE (U.R.I.)

Founded by RTF.
Addr: 4 rue Sainte-Anne, Paris 1°, France.
The Standing Committee of the International Radio-Television University (URI) meets twice a year in Paris between sessions of the General Assembly which are held every two years. This Committee provides continuity in the running of the URI.
This Committee comprised Mr. Théo Fleischman, president, Mr. René Dovaz, director of Radio Geneva, Mr. Sergio Pugliese, director of the Italian television service, Mr. Rostislav Behal, deputy director of Czechoslovak Radio, Dr. Henning Wicht, director of cultural broadcasts, Hessischer Rundfunk, Mr. Ernst Gampe, delegate of Oesterreichischer Rundfunk, Mr. Sven-Bertil Norberg, delegate of Swedish television, Mr. Paul Gilson, artistic director of the RTF, Mr. Michel Robida, deputy director of international relations, and Mr. Armand Lanoux, secretary-general of the URI – 41 countries have joined the work of URI.

RELIGIOUS BROADC. ORGANIZATIONS

See first page after Short Wawe stations of the World.

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MORE FACTS ABOUT EUROVISION

by G. Hansen
Director of the E.B.U. Technical Centre

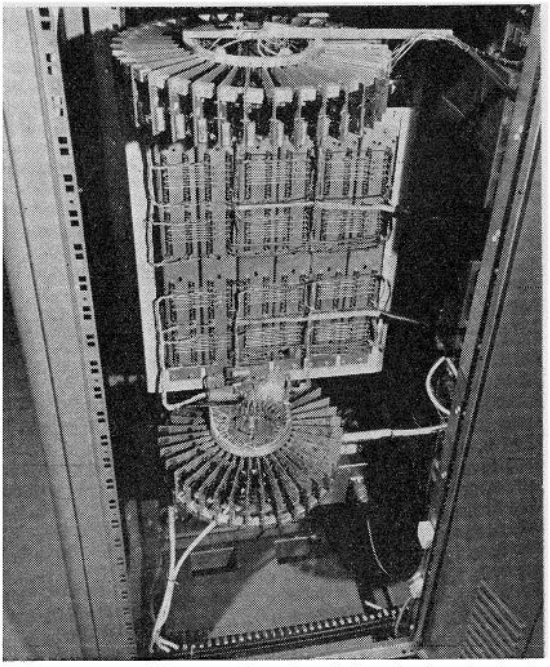
Since 1960, I have contributed an article about Eurovision to every number of the World Radio and Television Handbook, and regular readers must be tired of hearing about its progress. It is true, however, that this progress is going on and that there is no sign of its slackening its pace.

For the first six months of 1963 there was an increase of nearly 30% in the number of transmissions compared with the last six months of 1962. The news exchanges, which were described in last year's Handbook, are taking place nearly every day and have now become a regular feature. It was explained how the leasing of a permanent sound network made such an operation possible.

Many World Radio Handbook readers will have seen one or other of the transmissions on the occasion of the death of Pope John XXIII and the election and coronation of Pope Paul VI or of President Kennedy's visit to Europe. It may be of interest to them to know something of the scale of activity occasioned by such events. From the Vatican there were 108 transmissions having a total duration of 23 hours 40 minutes. Of these 13 were Eurovision transmissions (that is to say, live transmissions broadcast by some of the television services and in some cases by all of the television services belonging to the "Eurovision Club"). Twenty-two were Eurovision news items, that is to say, transmissions included in the Daily News Exchange Scheme which are recorded and appear in the evening in the television news bulletins of the participating television services. Seventy-three were what are called "request" transmissions, special transmissions undertaken for one particular television service. The corresponding figures for President Kennedy's visit were 59 transmissions in all, with a total duration of 43 hours 39 minutes, comprising 17 Eurovision transmissions, 9 Eurovision News transmissions and 33 request transmissions. All of these transmissions were planned and coordinated by E.B.U. staff and on them, as well as on the staff of the television services dealing with these transmissions, it was a very heavy load. One of the problems of Eurovision is to cope with the peak loads that result from the occurrence of international and national events of high topical interest, but it is our belief that television's immediacy should be exploited to the maximum on such occasions.

In the figures just quoted, readers may have noticed the high proportion of request transmissions. It is a trend in the exchange of television programmes that, once a television service attains a certain stage of development, it tends to demand more transmissions specially "tailor made" to suit the taste and habits of its viewers. Of course, this is more costly, as the expenses are not shared among several services.

Transmissions of television programmes across the Atlantic Ocean by means of artificial earth-satellites have now become quite commonplace. Between 10th July, 1962, which was the date of the launching of Telstar I, and 10th July, 1963, 63 transatlantic television transmissions were made by means of satellites, corresponding to a total of nearly 25 hours of programme. The signals were relayed on 21 occasions by Telstar I, on 28 by Relay I and on 24 by Telstar II. Programmes have now taken place with persons and audiences both in the United States and in Europe on the screen.



Electronic Standard Converter. Rear view of viaeo circuitry showing input (625-line) switch at top, storage and interpolation units in centre and output (405-line) switch at bottom. The B.B.C. Copyright.

In another field, a recent invention which will have some repercussions on television exchanges is that of a new method of standards conversion. Up to now, the converters have all worked on the image-transfer principle, wherein a picture monitor for one standard is set up in front of a camera working according to the required standard. There is a certain loss of picture quality and constant skilled attention is needed in the setting up and operation of such converters, as the performance depends critically on focus and contrast. In the new type of converters, the principle utilised is to sample the arriving television signal, to feed the samples into storage filters and to reconstitute the information according to the desired standard. It obviates the optical stage and gives a converted picture of better quality and stability. Such converters can work practically unattended, as was shown at a demonstration given by the B.B.C. in London on 20th August, 1963. The rendition of half tones (the "grey scale") in the converted picture is remarkably good. This electronic standards converter was developed by the B.B.C. Engineering Designs Department, from an original idea of Mr. P. Rainger. The converter demonstrated was a prototype and it will be another year before production models are put into regular operation. It should be stressed that such

Continued page 24

GREETINGS FROM

RADIO ★ PRAHA

ČSSR

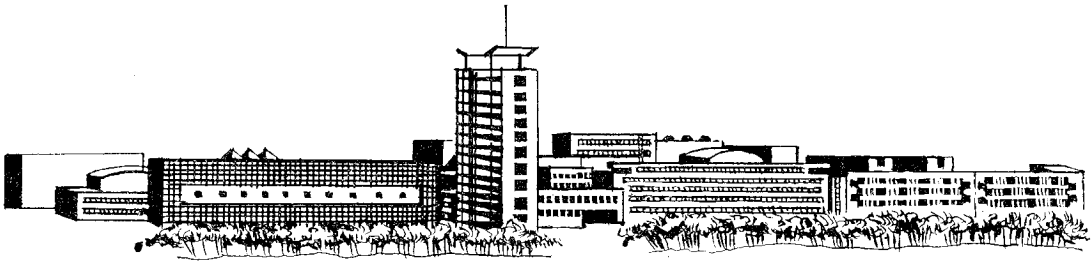
RADIO PRAGUE Broadcasting daily in English, Arabic, Czech, Slovak, French, German, Greek, Italian, Portuguese, Serbo-Croat, Spanish and Swedish – programmes of world news and views, reports from Czechoslovakia, music. Programmes also include answers to listeners, musical requests and regular columns for radioamateurs, DXers, and stamp collectors.

A MESSAGE TO SWLs Radio Prague is carrying out a continuous reception survey. *All correct reception reports are verified.* Listeners participating regularly in the monitoring work for the short-wave propagation department receive valuable souvenirs from Czechoslovakia.

FOR DETAILS WRITE TO:

RADIO PRAGUE – PRAGUE 2 – CZECHOSLOVAKIA

See editoral text page 82



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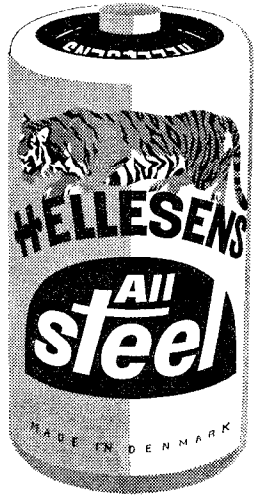

EUROVISION - *Continued from page 22.*

converters can be used for two standards with different numbers of lines, but not with different field frequencies.

Here, then are a few facts about Eurovision in 1963. The year 1964 will see the Tenth Anniversary of Eurovision; this occasion will undoubtedly be marked by a special Eurovision programme. Another important event in 1964 will be the coverage by Eurovision of the Olympic Games. There will first of all be the Winter Olympic Games at Innsbruck at the beginning of February and then the Olympic Games in Tokyo in October. Much preparatory work has already been undertaken for the sound broadcasting and television coverage of both events. As far as television is concerned, the present plan for the Tokyo Games is to fly television tape recordings representing the pictures and the "international sound" to Europe where, after conversion of the standards, the reproduced signals will be injected into the Eurovision Network. No doubt, in 1964 and the following years, the Eurovision Network will still expand, first of all in Europe to countries like Greece where it has recently been decided to start a television service. It is hoped also that further countries in North Africa will shortly be connected to the Eurovision Network. The artificial earth-satellites will doubtless continue to make more and more intercontinental exchanges possible. Finally, before very long, Eurovision will have to adapt itself to the transmission of colour-television programmes.

In view of the foregoing, it does not seem that in the near future we shall have to report to World Radio and Television Handbook readers that the progress of Eurovision has begun to slacken its pace.

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A world publication like WRTH is simply compelled to be in close contact with its readers, both listeners, the staffs of the various radio and TV stations, and advertising clients. We have to discuss the form and content of future editions, and we are most receptive to all positive wishes and suggestions. During the year the Editor receives a large number of welcome letters from countries all over the world, which are studied with keen interest in order to be able to meet as far as possible the wishes advanced in them.

We have decided this year once more to ask **all** our readers to cooperate by writing in and telling us **their** opinion of WRTH. Please write to us — briefly or at length — in any language you wish, and in coming editions we shall try if we can to meet any wishes you may have concerning the contents etc. of the Handbook.

You will not do so in vain, for 100 copies of the 1965 edition of World Radio Television Handbook or, at request, other of our publications, will be distributed among those writing to us.

Send your reply to:

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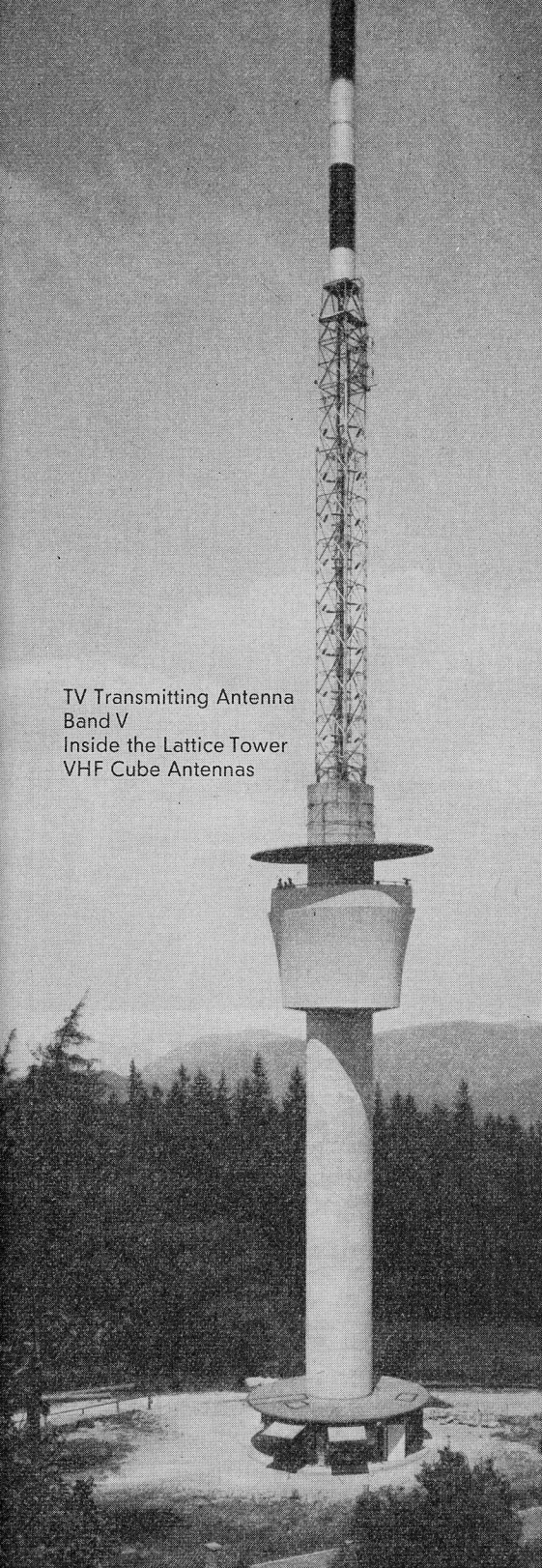

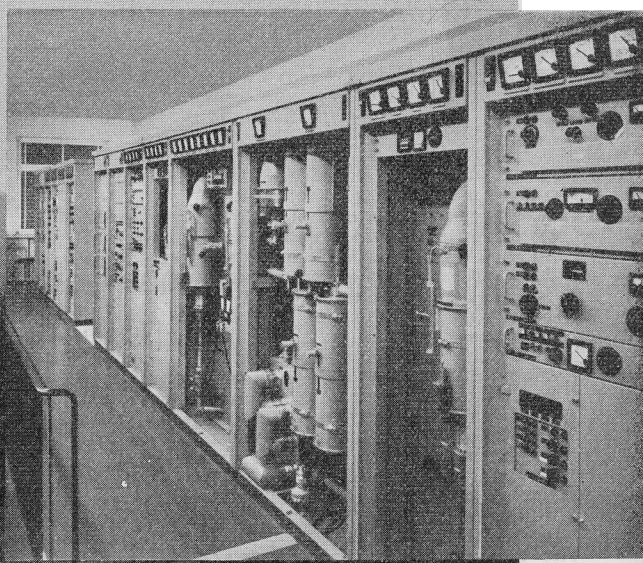

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INTERVISION

By Ales Suchy
Head of the Intervision Programme Coordination Centre

Ales Suchy

An internal relay system for the exchange of television programmes has been set up in the framework of the O.I.R.T. (International Radio and Television Organization) under the demonination of **Intervision.**

Members of Intervision can be not only O.I.R.T. members but any television organization which has adhered to the Intervision Statutes.

The establishment of **Intervision** in February, 1960, marked the beginning of new relations among television organizations of the Czechoslovak Socialist Republic, the Hungarian People's Republic, the German Democratic Republic, and the Polish People's Republic, who were the first members of Intervision. In 1961 they were joined by the Television of the U.S.S.R. and in 1963 by the Television of the People's Republic of Bulgaria and the Television of the Rumanian People's Republic. Since the establishment of Intervision the mutual exchange of television programmes, which until then had been very sporadic and uncoordinated, has been realized on the basis of plans and through the Intervision Coordination Centre, established for this purpose at the General Secretariat of the International Radio and Television Organization (O.I.R.T.) in Prague.

Planning of the development of mutual direct TV transmissions among Intervision members has contributed effectively to attainment of those aims in the field of programming that were the reason of the establishment of Intervision. The basic conception of Intervision broadcasts, as agreed upon by Intervision members, is as follows:

a) Regular exchange of topical information, direct relays of important events of a social character, interviews with social and state personalities, joint programmes on the occasion of important international events;
b) exchange of industrial and agricultural programmes as well as those dealing with the social life of the country concerned and achievements in the field of science and technique;
c) exchange of cultural programmes acquainting Intervision viewers with classical as well as outstanding contemporary works in the field of culture of the respective countries;
d) exchange of broadcasts for children and youth;
e) exchange of entertaining broadcasts;
f) relays of important sports events, both national and international.

The exchange of direct TV relays has not led only to intensification of the relations among Intervision members. By the establishment of Intervision prerequisites have been formed for mutual exchange of broadcasts between Intervision countries and West European countries whose television organizations are affiliated to Eurovision.

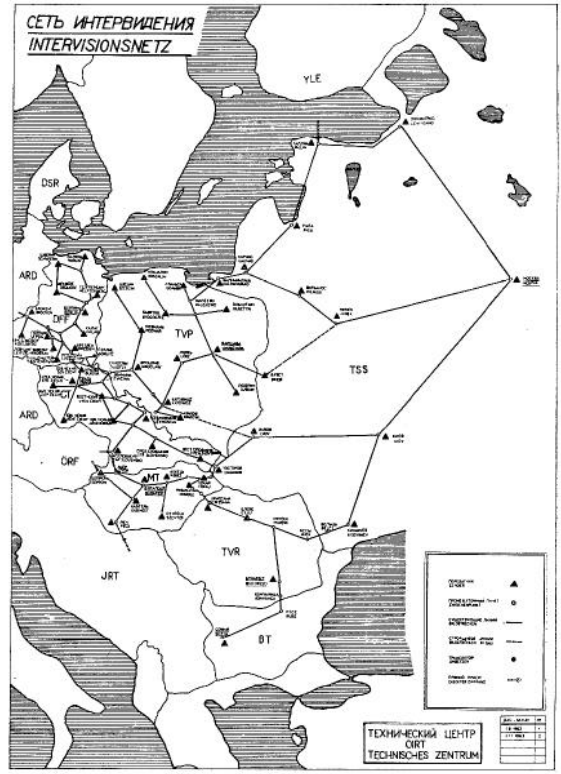
The Intervision broadcasts contributing to the exchange of cultural values by truthful reports on the life of nations and broadcasts reflecting important international events and questions of science, technology and sports have become an inseparable part of the national programmes of all Intervision members. 1455 broadcasts of a total duration of 1922 hours were relayed on the Intervision network in the course of the three past years.

These years were marked by a further strengthening and development of the programme, technical and organizational activity of the Intervision system. Intervision is guided by the Intervision Council which meets four times a year in order to examine fulfilment of the plan in the past period as well as to discuss and approve the quarterly plan of television programme exchange among the members of Intervision.

Furthermore, regular meetings of television experts are organized which discuss specialized problems of the television creation and draw up annual plans. These meetings include those of experts in programmes for youth and children, editors of sports broadcasts, experts in musical and variety programmes, experts in literary and dramatic broadcasts, etc.

For the realization of proposals and decisions of the Intervision Council the Intervision Programme Coordination Centre and the Intervision Technical Coordination Centre have been created in the framework of permanent bodies of the O.I.R.T. Both centres are situated in Prague and operate according to the Intervision regulations for international exchange of television programmes.

Continued page 54



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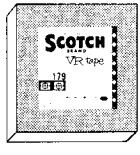

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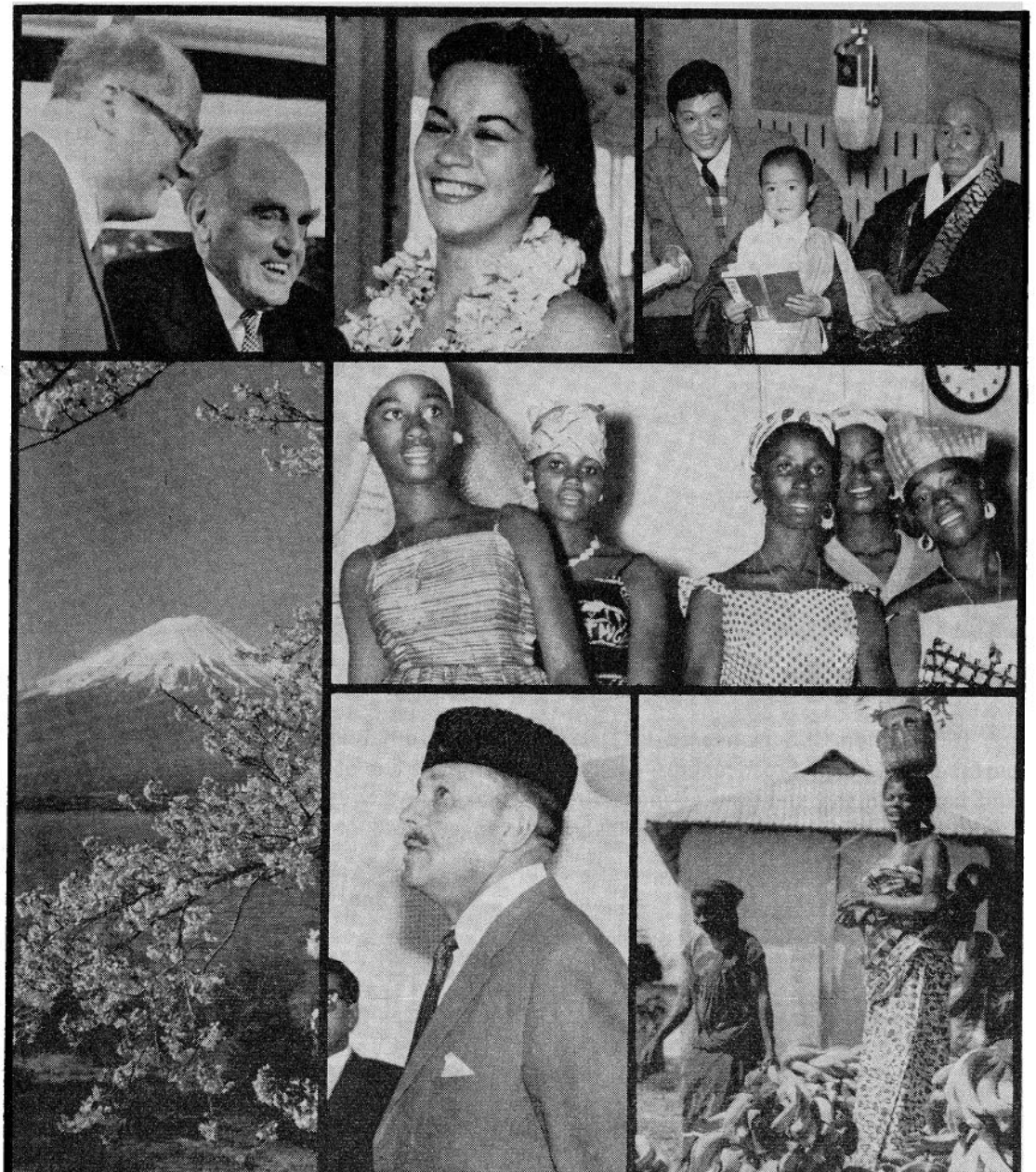
PICTURES OF THE WORLD

1	2	3
4	5	
	6	7

1. **Gt.Britain:** Lord Reith the first Dir-Gen. of the BBC (right) and Mr. Hugh Carleton Greene, the present Dir-Gen.
2. **Hawaii:** Miss Lani Curtino brightening up the program with flowery holokus and dazzling smile are one of "Hawaii Calls" entertainers (Hawaii Teleradio, Ltd, Honolulu).
3. **Japan:** Two buddhist priests, a young boy and his grandfather, broadcasting in the studio (Asahi Broadc. Corp.)
4. **Japan:** Mt. Fuji at cherry blossom time. (Japan Broadc. Corp.)
5. **Nigeria:** Group of Artists in a Lagos studio.
6. **Pakistan:** President Agub in Broadcasting House, Karachi.
7. **Ghana:** A Kerbside Banana market. The vendors would speak Pidgin-English to a European.



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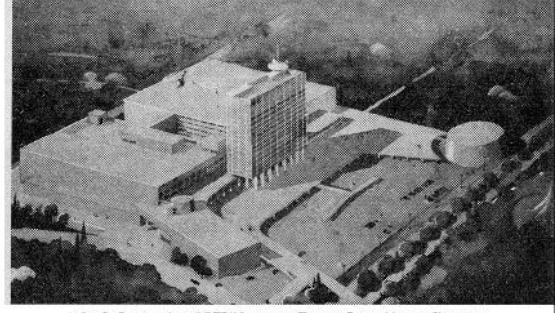
PLAN FOR BROADCASTING THE TOKYO OLYMPICS

By Ichiro Matsui, Director Planning Bureau Tokyo Olympics Broadcasting Headquarters, N.H.K.



Model of the NHK new Broadcasting Center.

The Japan Broadcasting Corporation (N.H.K.) has acquired the exclusive rights for telecasting the 18th Olympic Games in an agreement made between the Tokyo Olympics Organizing Committee. At the same time, N.H.K. would on its own responsibility, provide and operate the facilities necessary for radio and television broadcasting of the Tokyo Games.

Consequently, all broadcasting organizations desiring to cover the Tokyo Olympic Games must conclude contracts with N.H.K., must obtain allotments of these broadcasting facilities, and must negotiate with N.H.K. concerning the broadcasting conditions. Radio broadcasting rights are given without charge, but television broadcasting rights are sold by each Olympic Organizing Committee after obtaining the approval of the International Olympic Committee. Accordingly, the Organizing Committee has sold the television broadcasting rights in a lump to N.H.K.

As of September 20, 1963, a total of 71 radio broadcasting organizations from 59 countries, and a total of 42 television broadcasting organizations from 39 countries have already signified their desire to cover the Games. A total of 457 radio and television staff members are so far expected to come to Tokyo to cover the Games.

Five regional television organizations have already been in negotiation with N.H.K. concerning the television broadcasting rights. They are: the European Broadcasting Union (E.B.U.), representing Western Europe; the International Radio and Television Organization (O.I.R.T.), representing Eastern Europe; the National Broadcasting Company (N.B.C.), representing the United States of America; the Canadian Broadcasting Corporation (C.B.C.), representing Canada; and the Australian Broadcasting Commission (A.B.C.), representing Oceania. At the time this article was being written, no decisions had as yet been reached concerning the broadcasting organizations from the other two regions: Latin America and Asia.

N.H.K., the sole public broadcasting organization in the host country of the Tokyo Olympics, is making a number of plans so that the best possible programs can be presented in the best possible manner, both for N.H.K.'s domestic and overseas services.

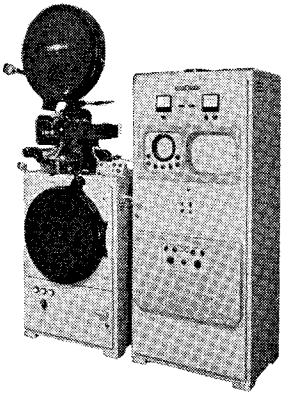
An average of eight events are scheduled to be broadcast daily, and the daily television broadcasting time is planned to total some 12 hours.

During the entire 15 days of the Olympic Games, Radio Japan, the overseas service of the N.H.K., will continue to broadcast bulletins on the results of each of the Games and recorded feature programs. Olympic Game bulletins will be broadcast every hour on the hour in both English and Japanese in the General Service, and also in 21 different languages in the various Regional Services. These broadcasts will total 36 hours a day. The broadcasting time will be greatly increased to provide live coverage of the most popular events, such as the opening and closing ceremonies, the Marathon races, and other track and swimming events. Unfortunately, since the activity of the sunspots in 1964 will be at their weakest in the eleven-year period, short-wave listening conditions at that time are expected to be in a state of maximum disturbance. In order to cope with these increased broadcasting difficulties, N.H.K.'s short-wave broadcasting facilities will be consolidated, and high-power broadcasting of 200 kW will be used in the broadcasts for remote regions such as North and South America, Africa, and Europe. Thus, it is planned to provide the best and fastest possible reporting of the Games under the slogan "Listen to Radio Japan for the first reports of the Tokyo Olympics." Broadcasting Organizations throughout the world are also desirous of rebroadcasting the Games.

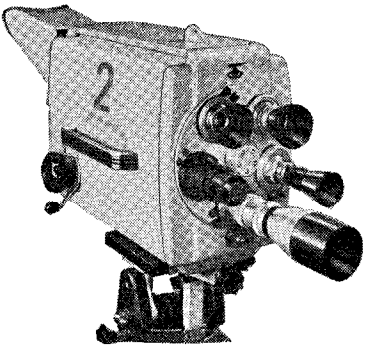
To assist these organization participating in the coverage of the Tokyo Games in relaying their own commentaries and the sound effects and possibly video signals which they have selected, a branch of the Overseas Radio and Cable System in Japan (K.D.D.) will be established in the Broadcasting Center, so that broadcasts can be transmitted directly from the center, a terminal, to terminal stations overseas. A new trans-Pacific telephone cable between Tokyo and Hawaii is currently scheduled to be completed in June, 1964. When it is completed, it is expected that audio circuits, which were in the past restricted to 5 short-wave channels simultaneously used, will be increased to about 15 channels. If this trans-Pacific cable is used for frame-by-frame transmission of television films, it will be possible to perform telephotography at a speed of 20 times of the normal transmission, if images by 1 megacycle compressed-band are transmitted on 50 of the 500 kc bands. In this manner, it would be possible to broadcast dramatic scenes such as the entry of each country's athletes at the opening ceremonies and the finish of the Marathon race on television networks in overseas countries a few minutes after they actually take place. In addition, plans are also being made among the related agencies for international relaying of microwaves by means of communication satellites and overland relaying stations. However, these plans have not yet reached a stage where definite steps can be taken for relaying broadcasts.

Thus, despite the differences in the TV standard systems and languages used, and in spite of the many difficult problems in transmission and reception of television images, progress is being made steadily towards the realization of simultaneous world-wide television relaying. It will be fortunate for all those concerned if the Tokyo Olympics should serve as a springboard leading to new breakthroughs in international television broadcasting.

TV STUDIO EQUIPMENT



Flying spot film scanner



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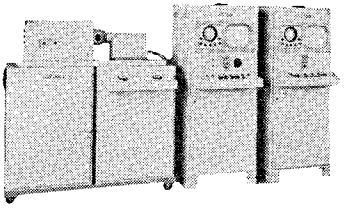
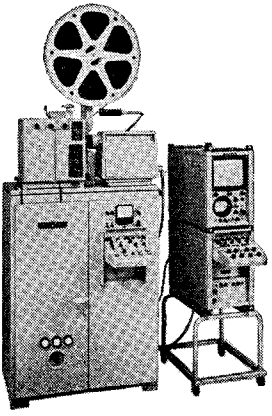


Standards Converter



Vidikon film scanner

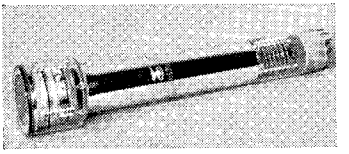
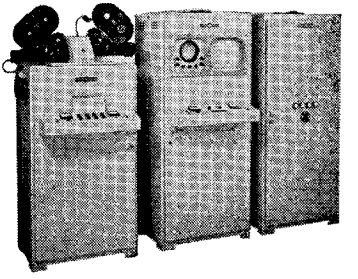


Image-Orthicon-Camera-Tubes with field mesh and suppressor



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INTER-CONTINENTAL TELEVISION PROGRESS 1963 - FUTURE 1964

By Edgar T. Martin, Engineering Manager, Voice of America, Washington 25, D.C. and George Jacobs, Chief, Frequency Division, Voice of America, Washington 25, D.C.

Inter-continetal television via space satellites became of age during 1963. Three experimental communication satellites, TELSTAR 1, RELAY 1 and TELSTAR 2, made it possible for European and North American television networks to exchange programs, live and immediate, on no fewer than 130 occasions during the year.

Tens of millions of television viewers on each side of the Atlantic Ocean bore silent witness to history in the making across the dimensions of geography and time zones. From the coronation of Pope Paul to the Christine Keeler affair, from the launching of astronaut Gordon Cooper at Cape Canaveral to the girlish face of cosmonaut Valentina Tereshkova flashed to earth from high in the voids of space above the Soviet Union, viewers in Europe and North America watched simultaneously as the virtues and the vices, and the laughter and the tears that make up the human drama of our world flashed on screens before them.

This age of inter-continental television began within a fortnight after the successful launching of the TELSTAR 1 satellite on July 10, 1962. On July 23, TELSTAR 1 made communication history by forging a television link between Europe and North America for the first time. TELSTAR 1, designed and built by the American Telephone and Telegraph Company, remained in operation until April, 1963 when its power supply was exhausted. During its nine month life, 600 communication experiments were successfully demonstrated with the satellite. Included in these demonstrations were 50 trans-Atlantic television program exchanges, 5 of which were in color.

RELAY 1 was launched from Cape Canaveral, Florida on December 13, 1962. Since that time RELAY 1 has performed more than 100 communication experiments, including the exchange of 50 television programs between Europe and North America, several of which were in color. The satellite has also successfully linked the United States and Brazil by the experimental relay of radio broadcasts between both countries. An automatic timer abord RELAY 1 is expected to turn off the satellite's communication system on Dec. 13, 1963, after one year's operation.

The third communication satellite which made trans-Atlantic television possible during 1963 was TELSTAR 2. Launched by the United States on May 7, TELSTAR 2 resembles closely its predecessor, but has a somewhat higher orbit, thus permitting a greater amount of mutual visibility time between American and European ground stations. TELSTAR 2 relayed more than 30 television programs between European and American networks during 1963. On several occasions, because of its higher orbit, the satellite relayed television programs as long as an hour in length. On one occasion, a ground station in Japan was able to track the satellite for a short period of time, although no programs were exchanged.

The TELSTAR and RELAY satellites are considered to be low-altitude satellites since their orbits range between approximately 600 and 7000 miles above the earth's surface. The fourth American communication satellite in operation during 1963, SYNCOM 2, was successfully placed in a synchronous orbit 22,300 miles above the earth. At this altitude, the velocity of the satellite is equal to the earth's velocity, and it appears to be almost stationary in the sky. SYNCOM 2 was launched on July 26, 1963 into a synchronous orbit which placed it over the south Atlantic Ocean, thus permitting almost continuous mutual visibility between the United States and most of Africa. Unlike TELSTAR and RELAY, SYNCOM 2, because of weight limitations, does not have the capability of relaying television programs over inter-continental distances. The satellite can only be used to relay radio broad-

Continued page 34

GEORGE JACOBS

George Jacobs was born on July 16, 1924, in New York City. He received his B. E. E. degree from Pratt Institute, Brooklyn, 1949, and his M. S. E. E. degree from the University of Maryland in 1960.

Mr. Jacobs is a representative of the Interdepartment Radio Advisory Committee (IRAC) and several other policy-level U.S. Government committees in the field of telecommunications. He has served as a delegate to several international broadcasting and telecommunication conferences, including the 1959 ITU Administrative Radio Conference, where he was the U.S. spokesman for high frequency broadcasting.

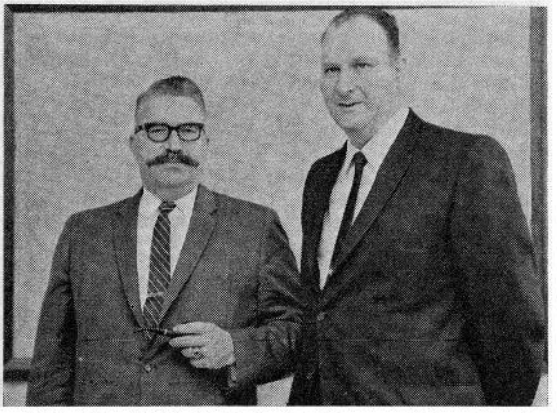
Most recently he attended the Tenth Plenary Assembly of the C.C.I.R. and the I.T.U.'s International Space Communication Conference, both held in Geneva during 1963. Mr. Jacobs was the U.S. Delegation's spokesman for satellite broadcasting at both conferences.

Mr. Jacobs is a Senior Member of the IRE, a member of URSI, and a registered Professional Engineer in the District of Columbia.

EDGAR T. MARTIN

Edgar T. Martin was born on May 1, 1918, in Princeton, West Virginia. He received his B. S. E. E. in 1938 and his M. S. E. E. in 1953. both from Virginia Polytechnic Institute. He also holds an M. A. in Government from American University, conferred in 1957 and an LL.B. from George Washington University. In 1959, he earned his LL.M. from Georgetown University.

He is a registered Professional Engineer in Virginia and the District of Columbia, and he is also a member of the Virginia Bar. He has attended more than a dozen major international conferences dealing with broadcasting and telecommunications, and was a delegate to the ITU's Administrative Radio Conference held in Geneva.



(Left) Edgar T. Martin, Engineering Manager, Voice of America. (Right) George Jacobs, Chief, Frequency Division, Voice of America.

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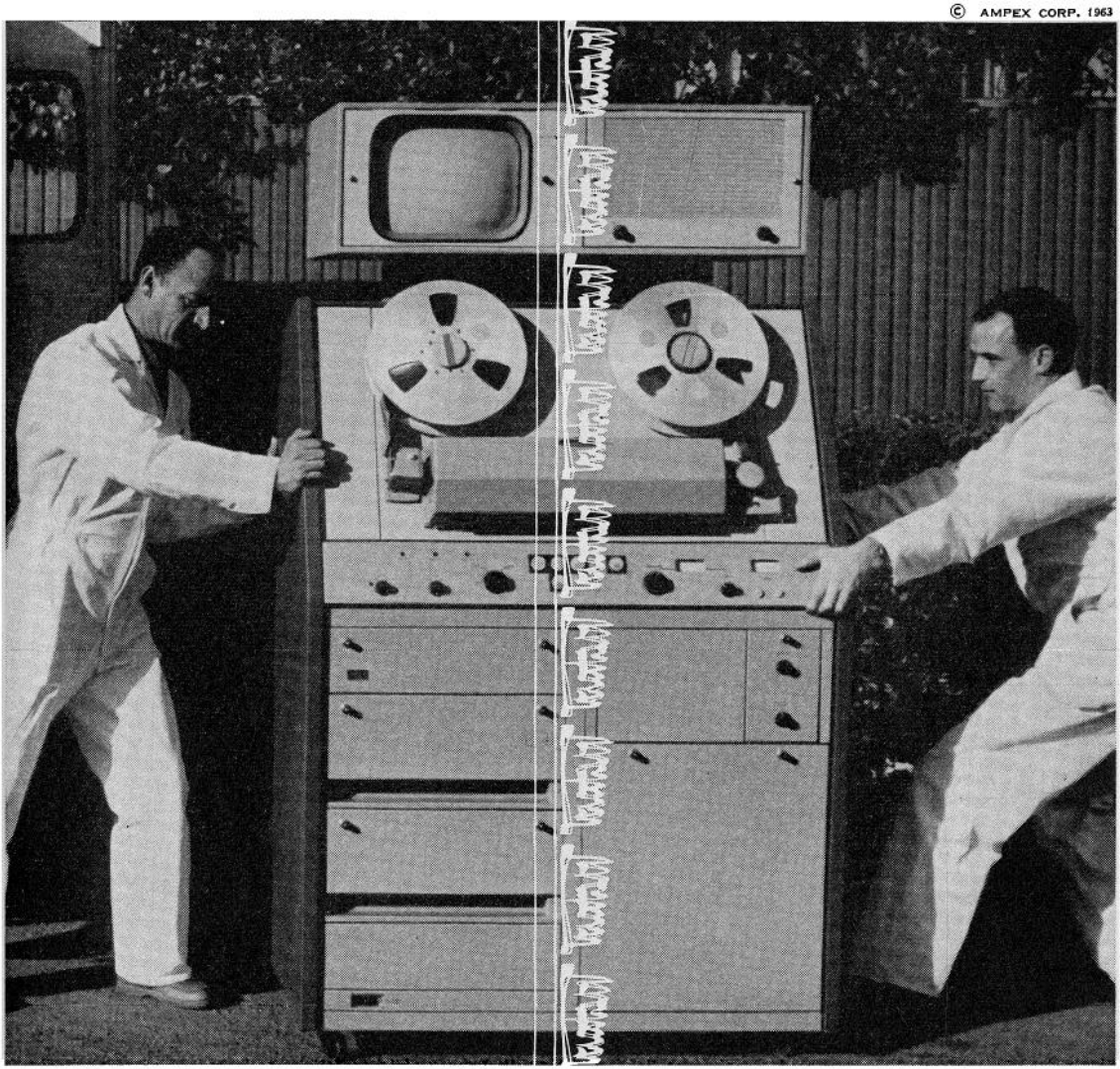

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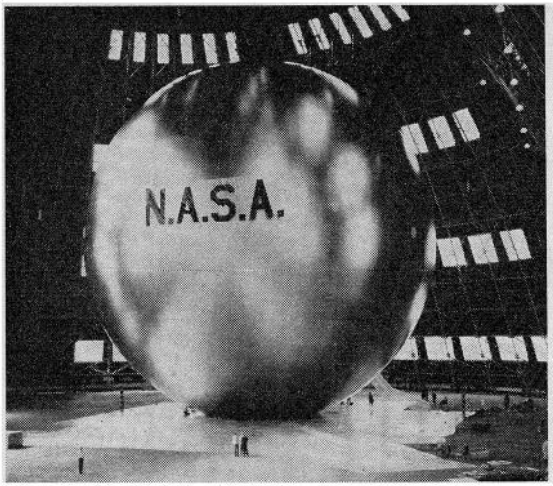
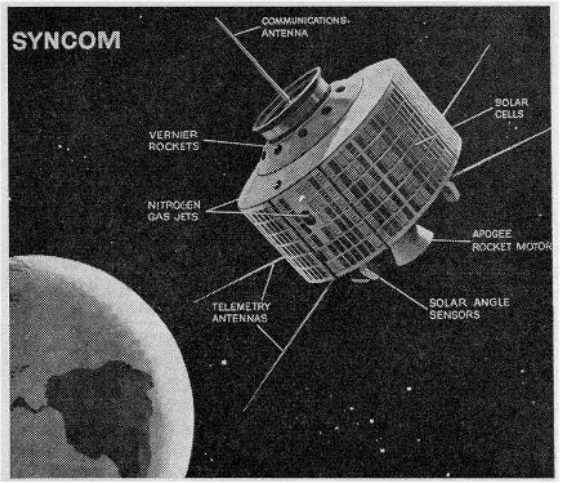


Shown here is the 135 – foot rigidized ECHO 2 passive communication satellite which NASA, the U.S. Space Agency, plans to launch early during 1964. It will be possible to reflect television signals over inter-continental distances from the aluminium surface of this hugh satellite.



An artist's concept of the SYNCOM 2 experimental communication satellite which the United States placed into a synchronous orbit at an altitude of 22,300 miles. SYNCOM 2, almost stationary above the south Atlantic Ocean, has been used to relay radio broadcasts between Africa and the United States.

casts, telephone calls, teleprinter and photo facsimile. On August 23, SYNCOM 2 was first used for a space relayed radio broadcast between Africa and the United States. The program began with a telephone call between President Kennedy and Nigerian Prime Minister Sir Abubakar Tafawa Balewa. The live telephone call travelled via SYNCOM 2 from the White House in Washington to a satellite receiving station aboard a ship anchored in Lagos Harbour, Nigeria. The telephone call, relayed by SYNCOM 2, was also broadcast over the facilities of the Voice of America and the Nigerian Broadcasting Corporation. Following the call, a special VOA-NBC exchange radio program was relayed by the satellite, which included remarks by U.N. Secretary-General U Thant, Vice President of the USA, Lyndon Johnson, and other American and Nigerian political and scientific leaders.

The Soviet Union also conducted experimental television transmissions from satellites during 1963. What was perhaps the most interesting inter-continental television relay during the past year, at least from the technical point of view, took place on June 17. On that day, a television camera mounted in the VOSTOK 6 spacecraft caught the smiling face of cosmonaut Valentina Tereshkova, the first woman to undertake an orbital flight. Flashed to a ground station in the Soviet Union, the pictures were relayed throughout Eastern Europe by the Intervision network, and throughout Western Europe by the Eurovision network. Received from Eurovision circuits at the Goonhilly Downs ground station in England, the pictures were relayed to an American ground station at Andover, Maine by way of the TELSTAR 2 satellite. From Andover, the lady cosmonaut's pictures were carried by the American television networks coast-to-coast throughout North America!

The year 1963 was a year of experimentation in the field of inter-continental television. TELSTAR, RELAY, SYNCOM and COSMOS are experimental satellites from which scientists and engineers expect to hasten the development of an optimum space communication system. Further experimentation is expected to continue through 1964. The TELSTAR 2 satellite is expected to remain operational at least through the first part of 1964, and will be available for trans-Atlantic television relays. The United States plans to launch a second RELAY satellite during 1964 which will replace RELAY 1. RELAY 2 will be very similar to RELAY 1, and will provide an additional link between North America and Europe in an inter-continental television chain. It may also be possible to use RELAY 2 for television broadcast relays to South America and perhaps other parts of the world during 1964.

The United States plans to launch SYNCOM 3 during 1964. This satellite will be almost identical to its predecessor, and will appear to be almost stationary in the sky at an altitude of 22,300 miles. While plans for the satellite are not yet complete, there is the possibility that SYNCOM 3 will be launched over the Pacific Ocean, thus making it possible to link the Far East with North America by way of space relayed radio broadcasts.

During early 1964, the United States plans to launch its second ECHO passive communication satellite. ECHO 2, a rigidized 135-foot diameter balloon, will act as a giant reflector of radio signals in the UHF and microwave region. This hugh radio reflector will be placed in a polar orbit at an altitude of about 800 miles. The United States and the Soviet Union have agreed to a cooperative experimental program using the ECHO 2 satellite, and it is expected that radio and television broadcasts may be exchanged between both countries as a result of this program. The ECHO 2 satellite is available to all other countries of the world as well, for experimental reflection of radio signals.

While still in the development stage, space satellites are likely to relay more words and pictures over a much wider area during 1964 than ever before. No longer is television limited to line-of-sight signal from tower to horizon, as man's inventive genius has extended its range to inter-continental distances.

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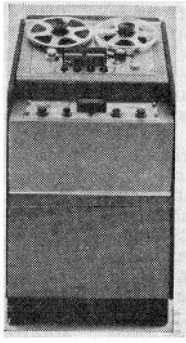

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RADIO AND TELEVISION IN THE SERVICE OF INFORMATION AND EDUCATION IN DEVELOPING COUNTRIES

by Dr. Henry R. Cassirer

Head of

Radio and Television Section,

Techniques Division,

Department of

Mass Communication, UNESCO

Radio broadcasting is the primary tool of mass communication in developing areas. It crosses deserts and swamps, mountains and forests. It is the cheapest in production and can be of relatively low cost in reception. Thanks to the transistor, it may be heard in areas without electricity, nor does it require roads or other means of transport to reach its audience. It appeals to the literate and illiterate with equal force. It is flexible in content and fast in transmission.

Yet it has serious limitations compared to other media of communication. It lacks the permanency and explicitness of the printed word. It appeals only to the sense of hearing. It cannot match the impact of the static photograph or wall poster, or of the moving film and television. It is thus limited in lasting impact and as a tool of systematic instruction.

Television may at first seem characterized more by its obstacles to the introduction in developing countries than by its opportunities to serve them. It is high in cost of installation, production and reception. Its programmes require elaborate resources of visual presentation and professional talent. Its range of transmission is limited. Reception requires supply of electricity. Maintenance of equipment for production and reception call for relatively high technical skills.

Nevertheless, television is penetrating all corners of the world at a surprising speed. In many countries, TV reception is limited to urban centers, the bulk of the population is not reached by it. Nevertheless, TV has proved so powerful in impact, so effective for the communication of information and education, so commercially attractive, so significant for national prestige, that its march around the globe exceeds all predictions.

If Radio appears to be most suitable for mass communication to all sections of the population, television may turn out to be the most effective medium of communication for intensive appeal to more restricted audiences.

Yet the actual spread of broadcasting in developing countries is far behind their needs and potential. That is why UNESCO is assisting its Member States in the planned development of broadcasting facilities, and in the training of personnel. UNESCO is also keenly interested to promote the production and dissemination of lowcost radio receivers. The task is to assure their large-scale production and marketing, a matter which UNESCO is exploring in cooperation with the Regional Economic Commissions of the United Nations, and with individual Member States and their manufacturers.

In developing societies, the dissemination of information and education are much more vital than the supply of mere entertainment. Without adequate development of human resources, without readiness of people to change outlook and practice, there is no chance for the necessary development of material resources. Such growth of human resources requires adequate channels for information and education, and expert knowledge in their use, under the particular conditions and limitations of largely agrarian societies which emerge into the modern age from tradition-bound patterns of life and the remnants of colonialism.

Information enables the individual to see himself in the context of national unity and world wide interrelation. Information creates the climate in which adoption of new technological practices and new attitudes toward ageold customs, the family and the broader community are possible. Information enables the citizen to play his part in the nation. But awareness through information is inadequate as long as the individual is insufficiently educated to master new skills and new knowledge.

As long as 700 million people in the world are illiterate, man will remain enslaved by ignorance. The first task is to bring an increasing number of children into schools which are adequately staffed, equipped and housed. The second task, to be undertaken concurrently, is to educate adults in ways of improving their livelihood, of increasing their knowledge, and of participating actively in a progressive society.

To train broadcast personnel in the production of suitable programmes, to familiarize educators and dynamic citizens with the most effective methods of utilizing such programmes, has become a vital necessity for every developing nation. Such training must be inspired by awareness of the particular functions which Radio and Television may fulfil in the fields of information and education.

In the field of information, news broadcasting comes first. No other medium can disseminate news as rapidly or as widely as the Radio, while television, if equipped with adequate resources, adds a plastic visual dimension. News of national, local and world event links continuously the individual and the society of which he is a part. The leaders of government, of science and of culture find broadcasting particularly effective as a channel of communication with the mass of the people. Such communication is vital in a society in formation, in change and in movement. Here television proves even more effective than Radio, for no image is more »visual« than the outstanding human personality. When Radio, and even more TV, are present at public events, at contests in sports or the arts, at ceremonies or manifestations, they convey a sense of participation which serves to weld the nation and to create the climate for emulation.

Beyond the transmission of factual information, broadcasting fulfils an important informational function through the documentary, the dramatic or composite presentation of a problem or a situation in its depth and context. It is here that broadcasting seeks to penetrate beyond the daily, the obvious and the apparent, in order to convey a more basic and vivid understanding required for decision-making and intelligent citizenship. The purpose of the documentary is thus not merely informational but motivational. It is to create the emotional climate, the intellectual stimulus for

Continued page 38

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awareness and action. This lies on the borderline between information and education. For to broaden the horizon and to increase the store of knowledge is the purpose of both.

It is in adult education that this imperceptible interpenetration is most common. Particularly in a developing society, information has always educational undertones, while education will be filled with content of new information. But their objectives are different. Information stresses the transmission of content. Education implies purposeful growth of the individual and the group, more or less systematic acquisition of knowledge, and preparation for action, whether within the context of an educational curriculum or in the adult community.

In adult education, broadcasting seeks to stimulate knowledge and activity in such fields as agriculture, health, or citizenship. But here the broadcast medium must be linked with inter-personal communication, for man will assimilate into his own life only what has been endorsed by those whom he traditionally respects in family or village. Discussion of broadcasts in radio farm forums or teleclubs is thus an essential part of the utilization of these media for educational purposes. Such discussions are particularly effective if provision is made for feed-back of questions and reactions from audience groups to broadcast stations.

The inter-personal link is equally important in all efforts to use broadcasting for instruction. Whether it be in the teaching of modern languages or of literacy, in agricultural instruction or domestic management courses, the presence of a teacher or monitor on the reception end, who is able to complement the broadcast message, adds immeasurably to the effectiveness of such impersonal but widespread teaching. The one-way communication channel of broadcasting has its educational limitations; but the hunger for education and the dearth of resources make it nevertheless a valuable tool of the educator if it is properly used.

In the education of children, broadcasting can fulfil a particularly effective role in the training of teachers in service. The undertrained, isolated teacher is present in rural and urban communities of all developing countries.

Addressing itself directly to pupils in the classroom, Radio and Television come to supplement the work of the teacher, to introduce the aural illustration of music and sound or the visual documentation normally absent in class. The degree to which such school broadcasts take over the teaching load will depend upon the qualifications of teachers, their skills and knowledge in specialized subjects, and the availability of schools. Under extreme circumstances of lack of schools facilities, broadcasting, especially the more complete medium of television, can become major channels of instruction.

The uses of Radio and Television for information and education in developing countries are rich and manifold. Their application, however, is frequently still of a limited nature; even our knowledge as to how they may be applied in tropical areas or in the isolated mountains of Asia and Latin America is only rudimentary. All too frequently it is based largely on experience in more highly developed societies. There lies a broad, uncharted road ahead which passes through establishment of facilities and training of personnel, to the systematic and creative application of Radio and Television to the vital needs of information and education which harass all developing societies.

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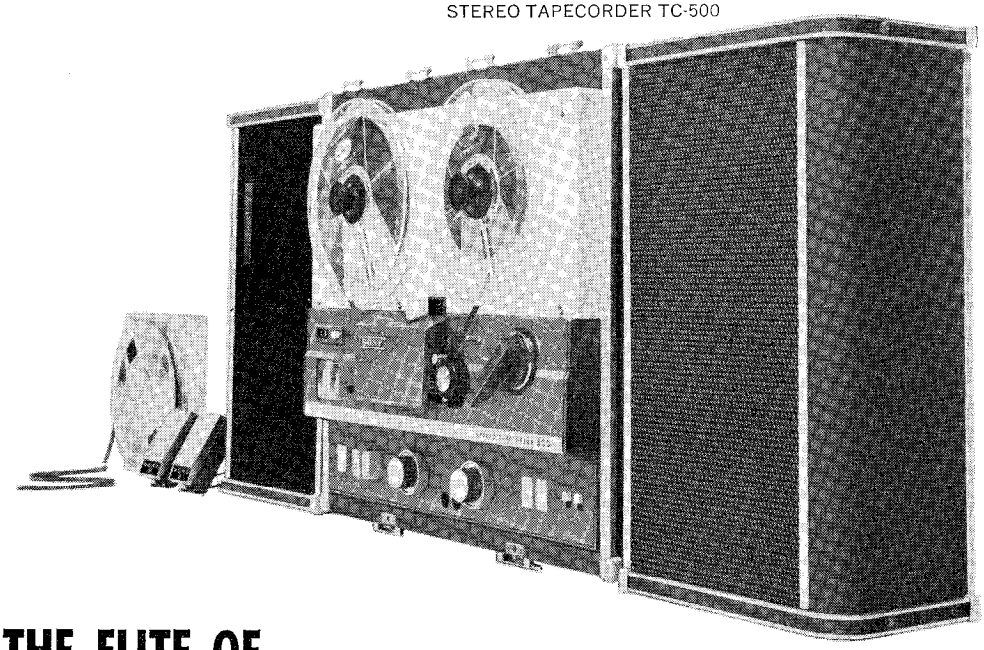

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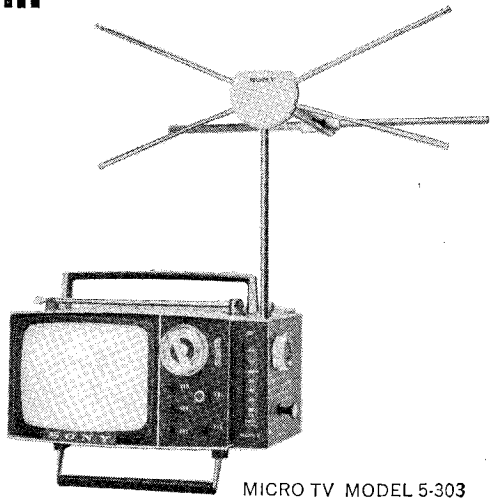

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COLOUR-TELEVISION STANDARDS FOR EUROPE

by Georges Hansen
Director of the Technical Centre, of the European Broadcasting Union
Vice-Chairmann of C.C.I.R. Study Group XI (Television).

For many years, and especially since the adoption of the NTSC system in the United States, work on colour television has been going on in Europe, but it is only recently that the fixing of colour-television standards has become urgent, as it is intended to start regular colour-television services in several countries within the next few years, notably in the United Kingdom in 1965. Consequently, in November, 1962, the E.B.U. formed an ad-hoc group composed of specialists from E.B.U. Members, Telecommunication Administrations and radio manufacturers effectively engaged on tests of colour-television systems, the countries represented being France, the Federal Republic of Germany, Italy, the Netherlands, Switzerland and the United Kingdom.

The Chairman is Professor R. Theile, Director of the Institut für Rundfunktechnik, Munich. The mandate of the Group requires it to coordinate the studies and trials undertaken on colour-television systems, to compare the several systems on the basis of the results of these studies and trials and to draft the proposed European colour-television standards for submission to the C.C.I.R. As it is important that these colour-television standards should be adopted by as many countries as possible, an exchange of information has been arranged between the E.B.U. and O.I.R.T. on the studies and trials of the colour-television systems.

The Ad-hoc Group got down to work quickly, and six sub-groups were formed: General characteristics (Chairman: Dr. R. D. A. Maurice, BBC); Receivers (Mr. F. C. McLean, BBC); Propagation (Mr. K. Bernath, Swiss PTT); Transmitting Equipment (Mr. H. Hopf, IRT); Programme-distribution networks (Dr. E. Castelli, RAI); Studio and recording equipment (Mr. L. Goussot, RTF).

Various demonstrations were given for the Group and for the Sub-groups in London in November, 1962, at Hannover in January and February, 1963, in Paris in March, 1963 and at Eindhoven in May, 1963. Another and very important series of demonstrations was given in London in July, 1963. Further demonstrations will take place in Bern in September, 1963 and in Rome in October, 1963.

When it started its work, the Group took into consideration two systems only, namely the NTSC system, adopted in the United States in 1953, and the SECAM system developed in France. After the demonstration at Hannover, it was decided to take into consideration a third system, known as **PAL** (**P**hase **A**lternation by **L**ine) which was developed by Mr. Bruch of the Telefunken company. It is not possible here to describe these three systems in detail and I would refer the reader to the very clear description which was given by Prof. Theile in the E.B.U. Review.* In fact, the three systems have much in common, as they are all based on the fundamental principles of compatible colour television that were introduced in the development of the NTSC system; in all three systems, the luminance and chrominance information are transmitted separately, the chrominance information in the form of two chrominance signals (colour-difference signals) modulating a colour sub-carrier. The significant difference between the three systems lies essentially in the methods of modulating the colour sub-carrier. In the NTSC system, simultaneous double amplitude modulation with suppressed carrier is used. In the SECAM system, straightforward frequency modulation of the sub-carrier is used and the two colour-difference signals are transmitted successively, line by line. A delay-line having a propagation time of one horizontal period in the receiver makes it possible to obtain the two colour-difference signals simultaneously. The PAL system is analogous to the NTSC, except that there is a periodical alternation, from one line to the next, of the phase of one of the modulation components by the amount of $\pm \pi/2$.

The purpose of the tests undertaken by the Ad-hoc Group is to enable an evaluation of the three systems to be made, taking into account the various factors which may affect the quality of the colour picture and of the black-and-white compatible picture, or which may have an effect on the cost of the receivers, their ease of tuning, stability in operation, etc. The problems connected with the studio and recording equipment, the programme distribution networks, the transmitting equipment, the propagation phenomena are also taken into account.

The most recent demonstrations at the time of writing this article were those in London, in July 1963. They were very impressive. They applied to the three systems, NTSC, SECAM and PAL. Some of them were made at video frequency, but the majority made use of the signals radiated by two UHF transmitters, one of which radiated NTSC signals and the other alternately SECAM and PAL signals. It was thus possible to compare, on two receivers side by side, pictures transmitted according to the SECAM or PAL systems with those transmitted according to the NTSC system. The members of the Group were able to assess, on the received pictures of the three systems, the effects of interference, noise and phase distortion. The compatible black-and-white pictures, with the NTSC, SECAM and PAL systems could also be compared. Demonstrations were given also of recording the signals of the three systems on tape, as well as of mixing and fading multiple picture sources. The results of all the tests will be taken into account in the final evaluation of the systems which it is hoped to achieve before the end of 1963.

The Ad-hoc Group on Colour Television will then draft a report for presentation to the C.C.I.R. at a meeting of a special group having the task of defining the system of colour-television to be adopted in Europe. This meeting has been convened by Mr. E. Esping, Chairman of C.C.I.R. Study Group XI, for 14th to 25th February, 1964 in London. Let us hope that it will be possible then to agree on a common colour-television system for all the countries of Europe.

* Part A – Technical, No. 80, August, 1963.

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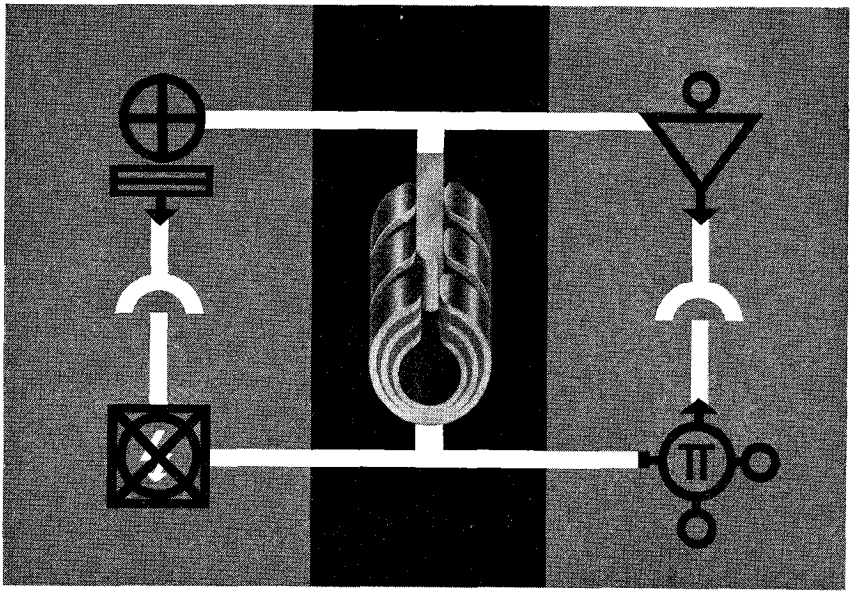

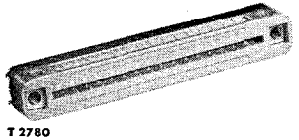

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INTERFERENCE, JAMMING - AND YOU

by S. B. Duke, President of Radio Canada Shortwave Club

By interference we usually mean man-made noise which will detract from the intelligence of the desired signal. But in this article, we will also discuss other types of interference encountered in shortwave reception. For example, static (atmospherics), extra-terrestrial or cosmic noise and—jamming.

Perhaps the most common types of interference (known as QRM) on the international shortwave broadcasting bands today are:—

Heterodynes
of low or high frequency depending upon the audio note (whistles) produced by the beating together of the carrier waves of the desired station and the interfering station. The heterodynes, or whistles referred to here, are usually of constant pitch.

Modulation
spread (or splash) causes adjacent-channel interference when it is heard above the program of the desired station. Due to the seriously overcrowded condition of the international shortwave broadcast bands, radio stations are forced to operate very near—or even on each others' frequencies. Since the Administrative Radio Conference, Geneva 1959, notifications of frequency usage are accepted by the International Frequency Registration Board with only 5 kc/s separation. Of course such circumstances require increased selectivity in receiving equipment if the various signals are to be received without undue mutual interference. The less selectivity a receiver possesses, the less ability it has to separate these signals sufficiently to provide clear reception. The decision to adopt a 5 kc/s separation principle was no doubt due to chronic overcrowding of the broadcast bands and of course many stations were already operating on frequencies 5 kc/s (or less) from their neighbours on the tuning dial. Therefore, to recapitulate, **adjacent-channel interference** is due to the modulation of one station spilling over onto the program of another station (or stations) operating 5 kc/s away.

Reading left to right, S.B. (Pip) Duke, Supervisor of Engineering Services, CBC International Service and the President of the Radio Canada S. W. Club; Duncan Nicholson, Assistant Supervisor of Engineering Services, CBC International Service and the Vice-President of the Club; and Eileen Moore, Producer of the Program.

Co-channel interference can be recognized by the presence of two intelligable programs on the same frequency when each signal is approximately the same strength. Sometimes, when one of these signals is much stronger than the other, it will completely, or almost completely blanket its unwilling bed-fellow. The main contributing factor to **co-channel interference** is, once again the serious overcrowding of the international shortwave broadcast bands. Insufficient geographical separation between mutually interfering stations, off-beam antenna radiation and insufficient geographical separation between target areas are other factors contributing to co-channel and adjacent-channel interference.

Code
signals on or near the operating frequency of a broadcasting station often cause interference which an experienced shortwave listener will be able to recognize as morse (CW), facsimile, radio-teletype (RTT) and so on. Sometimes, this interference at the receiver may be caused by a harmonic of the fundamental (or operating) frequency of the interfering station.

Noise
can be sub-divided into two types, atmospheric, (extra-terrestrial or natural noise) (QRN) and man-made noise such as car ignition, starter lights, dirty commutator brushes etc., (QRM). There are two types of natural noise, atmospheric and extra-terrestrial (sometimes called cosmic or galactic noise). Atmospheric noise is the most erratic. It various with the time of day, season of the year, the weather, and increases the nearer one gets to the equator. The crashing noise heard in a receiver, resulting from a lightning flash is a good example of this type of noise. Extra-terrestrial or galactic noise is unlikely to be heard below about 18 or 20 Mc/s. It sounds like a steady hiss and increases rapidly during some types of solar disturbance.

But the noise most often heard by the shortwave listener is that caused by lightning storms in our atmosphere. Don't forget, a lightning flash is a form of transmitter and propagates an electric impulse (similar to a radio wave) over great distances. A large flash in West Africa may well add to the background noise—and so interfere with reception in Europe.

Whilst we are discussing this problem of interference, it will be appropriate to mention the information most useful to radio station engineers and which should be included in any reception report:

I identify all types of interference—first by type such as CW, jamming, modulation splash, heterodynes and so on.
II identify the source of the interfering signal, callsign, language of announcements, nationality of the station, interval signal etc.
III operating frequency of the interfering station.
IV the degree (or strength) of the interference in terms of degradation of the required signal. Here the SINFO code is very useful. The judgement of the operator or shortwave listener is necessarily subjective in this assessment.

There is another form of interference encountered

Continued page 44

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in the international shortwave broadcast bands and that is **jamming.**

Jamming means the deliberate interference with a transmission by imposing on it another signal to prevent reception or to make the transmission unintelligible. Fundamentally, jamming interference is a broadcast or a number of broadcasts of noise signals, perhaps a tape recording of a diesel motor. It is easily recognisable by the "harsh roar" characteristic. The interference (QRM) from such transmissions may be either **adjacent channel** or **co-channel.** If of the adjacent channel type, it is called "**jammer splash**". Sometimes, jamming transmissions are sufficiently broad, or wide-band, to cover more than one channel.

What can be done to remove or suppress jamming? First, we should be quite clear about one thing. The possibility of ending the effects of jamming by various "new" techniques and vague panaceas is misleading. Jamming can only be stopped by switching off the jamming transmitters. This will probably be effected through political rather than technical action. For, as new or improved methods are developed to minimize the effects of jamming, improved methods of jamming are also found. Some of the technical ways to combat jamming include the use of more powerful transmitters to beam the program into the target area, the greater use of overseas rebroadcast bases nearer the target area, the use of a greater number of transmitters carrying the same program—even "barrage" transmissions of fifteen or twenty senders each on a different frequency. Then there are improvements to directive antenna systems so narrowing the beam and improving directivity and gain. Speech clipping techniques are also used to provide the maximum amount of intelligence for adverse reception conditions.

At present, the international shortwave bands are chronically overcrowded and the situation is fast becoming accute with the current decline in sunspot activity. Many users of the higher frequency bands such as 13 and 16 meters must make greater use of the 19, 25 and 31 meter bands and even lower HF bands during hours of darkness.

It is generally conceded that the need from many frequencies would diminish if so many channels were not rendered unuseable by jamming or jammer splash.

So far as jamming interference is concerned, there is little that the average shortwave listener can do. It is true that shortwave receiving and monitoring stations operated by the professional shortwave broadcasting organizations possess equipment which can do much to remove the degrading effects of jamming from a signal. But it is quite complex and highly expensive equipment. The use of directional receiving antennas also helps to reduce this type of interference but again, such arrays are quite large and very expensive. A very selective receiver is useful, especially if it has a selectivity switch with at number of positions so that the band-pass can be varied.

However, it will take much more than the equipment available to the average, shortwave listener to overcome the effects of jamming. There must be a realistic re-appraisal of the whole situation by jammer and jammed. That there is already some evidence of progress in this direction is clear to anyone listening regularly on shortwave. There is a long way to go yet, but with goodwill and mutual trust it should be possible for broadcaster and listener to communicate together in dignity and peace.

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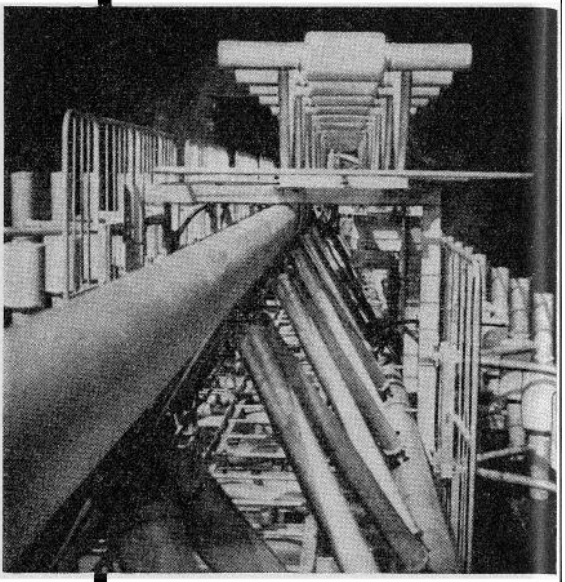

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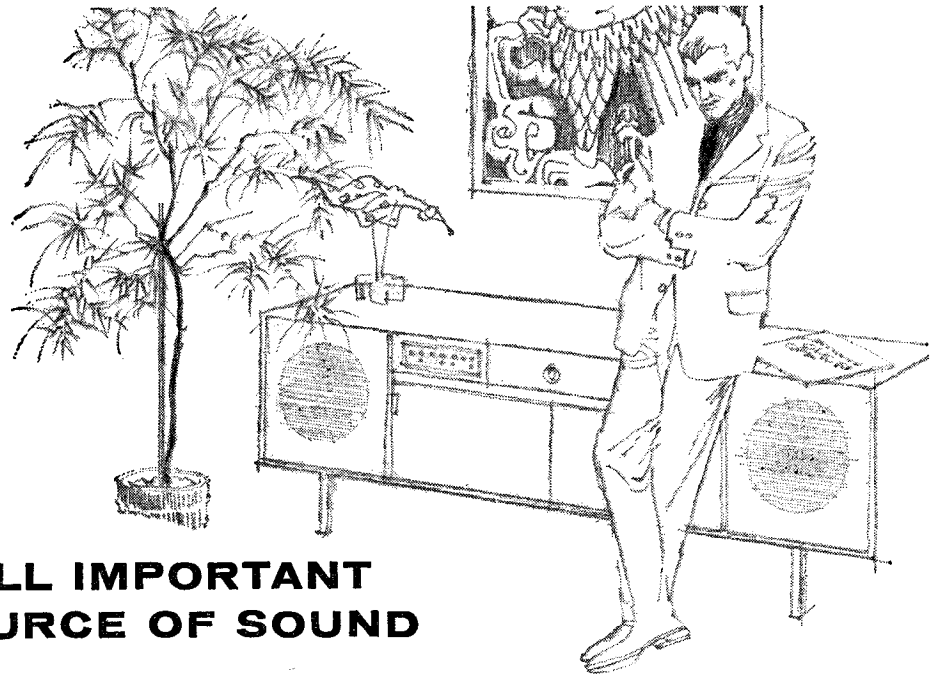

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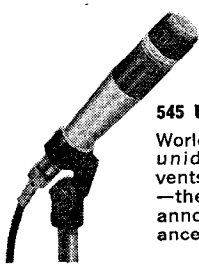

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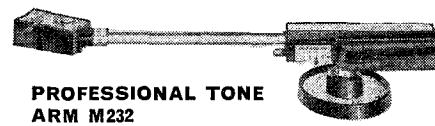

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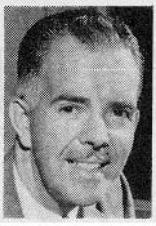

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AERIALS FOR SHORT WAVE, MEDIUM WAVE AND LONG WAVE RECEPTION

Prepared by the engineering staff of Radio Nederland

An examination of radio receiver design in recent years will show that practically all models are fitted with built-in aerials. Usually a ferrite rod is employed for the Medium and Long Wave bands and a foil, wire or frame aerial for the Short and FM (VHF) bands. Many of the small, portable receivers marketed today are fitted with a telescopic rod aerial which has to serve all the bands on which the set operates. As long as the user is satisfied to receive relatively nearby stations and those with a very powerful signal, these built-in aerials generally meet the requirement. Under certain interference conditions they may even possess an advantage.

A large percentage of receivers, however, are fitted with a socket or other connection for an external aerial. There is a very good reason for this because, after all, it is the aerial which has the task of picking up the signal radiated from the transmitter. At large distances from the transmitter, the amount of energy in the atmosphere is very small and, moreover, is subject to local conditions. The greater the area spanned between aerial and earth, the greater the amount of energy which can be derived from the atmosphere. It follows from this that it is advantageous to erect an outdoor aerial as high as possible from the ground and also to keep it free of all obstacles, most of which must be regarded as "earth" and which—as in the case of buildings through which mains supply wiring runs—are often sources of interference in themselves.

A good outdoor aerial always affords better chances of reception—particularly over long distances—than any indoor or built-in type. The stress, however, is on the word "good"!

In designing an aerial, three factors are of major importance:

1. the ability of the aerial to derive as much energy as possible from the atmosphere;
2. the need to transfer this collected energy to the receiver with a minimum of loss;
3. the desirability of incorporating in the aerial—where possible—a means to discriminate between wanted and unwanted signals.

All these factors are largely affected by the range of frequencies in which it is desired to receive signals. In order to obtain maximum efficiency from an aerial it is desirable that it be "tuned" to the signal; this, however, can only be achieved in respect of a very limited range of frequencies in any single aerial, and at other frequencies the sensitivity of the aerial will decrease. In order to achieve the degree of "tuning" required the length of the aerial must be between one-half and twice the wavelength on which it is to operate. It will immediately be clear that this is only feasible in the case of short and ultra-short wavelengths. Above 50 metres it is well nigh impossible for the average listener to build a tuned aerial; even at wavelengths of less than 50 metres it is no simple task!

The design of an aerial also determines its directional sensitivity. Some types pick up much more energy from one direction than another, while other types appear to have no such characteristics. It will be clear from this that a correct choice of aerial tuning and directional sensitivity can result in the reception of one or more stations being improved at the expense of others, however this combination demands fairly complicated aerial installations which are outside the reach of the majority of listeners. At the same time use can be made—albeit on a modest scale—of the fundamental characteristics of a number of aerials which are within the reach of the majority. One of the most difficult problems is the transfer of energy from the aerial itself to the receiver. The answer will always lie in one or other wire or cable connection, but this is required to possess characteristics similar to those of the aerial on the one hand, and those of the receiver input circuit on the other. The char-

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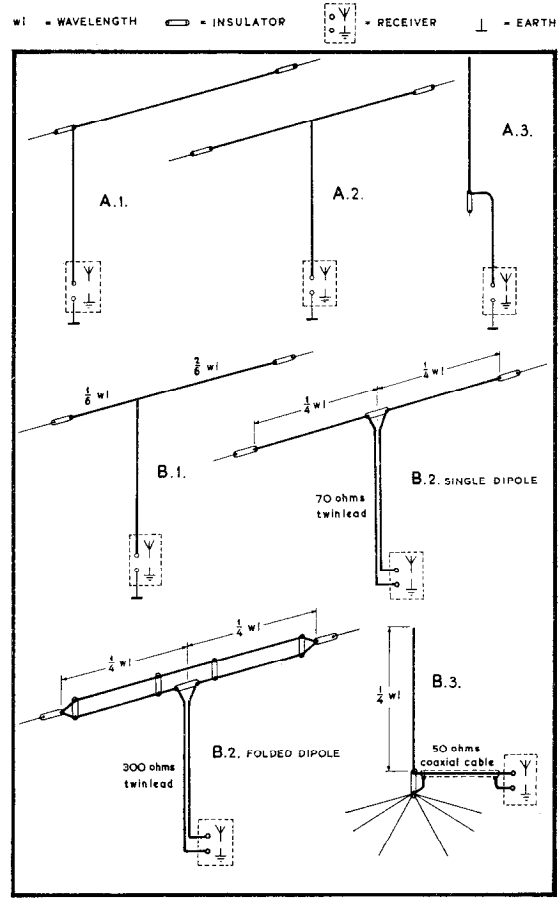

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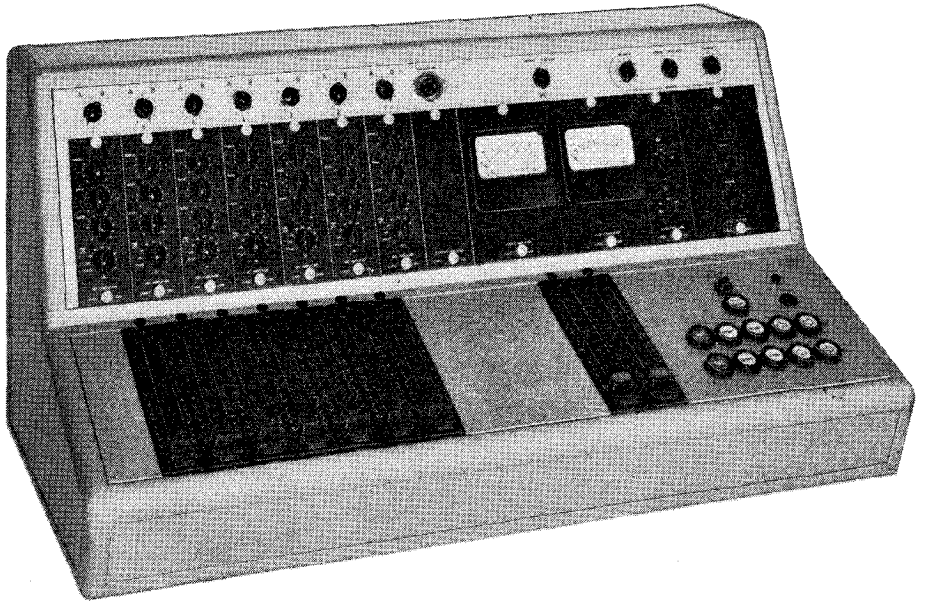

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acteristics of the lead-in often depend largely on the wavelength of the desired signals and the result will seldom be ideal without recourse to special matching arrangements.

After reading the foregoing, you may wonder how anyone ever succeeds in achieving good reception over a wide range of frequencies. Fortunately things are not as bad in practice as they may seem, and thanks to the large amount of energy radiated by broadcasting stations and the sensitivity of modern receivers, there's a pretty wide margin. What we have said already will, however, help to explain several fundamental principles which must be borne in mind when erecting an aerial.

Firstly every good aerial must be mounted as high as possible and as far away as possible from obstacles. It is hardly necessary to say that insulation of the aerial itself and of the lead-in must be firstclass if loss of energy to earth is to be prevented. This does not mean that the wire from which the aerial is made must necessarily be covered with a layer of insulating material, but that the points at which it is suspended must be and must remain so even during bad weather. Special glass and ceramic insulators are now available for this purpose. The point at which the lead-in enters walls or window frames also demands great attention. Care must be taken to see that the connection between the lead-in and the receiver input is and remains conductive. If it is not possible to construct the aerial from a single piece of wire, joints must be soldered and afterwards covered with paint or plastic material to prevent corrosion.

If the lead-in is long, or where it has to pass on its way to the receiver through one or more rooms, corridors etc., in which sources of interference are present, it will probably be necessary to shield the wire against such interference. Special cable can be obtained for this purpose, however the assistance of an expert will be necessary since with such material the cure can sometimes be worse than the disease! In order to increase the signal yielded by the aerial and, above all, to reduce sensitivity to interference, it may be necessary to "earth" the receiver. This involves making a well-conducting connection between the receiver and a metal water supply pipe or a metal plate buried in the ground. A wire of suitable thickness or a rod similarly buried may also serve this purpose. The earth connection can also be used with a lightning arrestor—a "must" in areas where thunderstorms occur frequently.

TYPES OF AERIAL

A. non-tuned aerials.

This type has little or no directional sensitivity. By the use of variable matching filters, a degree of tuning and thus increased sensitivity is attainable for each frequency, and this can afford improved reception under unfavourable conditions.

A 1. The inverted "L" aerial is still the most effective universal type for use at all wavelengths above 10 metres (frequencies below 30 Mc/s). It consists of a single wire 10-15 metres in length and suspended horizontally as high and as far from obstacles as possible. The lead-in is connected at one end of this wire and can normally consist of a single wire also. Shielded cable may, however, be used for the lead-in if required.

A 2. The "T" aerial is fundamentally identical to the inverted "L" except that the lead-in is connected at a point half way along the horizontal span. This arrangement can offer certain physical advantages in erection.

A 3. Among the non-tuned aerials is the vertical rod type, consisting of a metal rod of between 3 and 6 metres length mounted in such a way that it is insulated from the base. This type is ideally suited for erection on high chimney stacks or roofs where no second suspension point is available at a suitable distance from the first. The vertical rod aerial is frequently used to feed central aerial systems in which the amplified signal is passed via special cables to a large number of receivers.

B. tuned aerials.

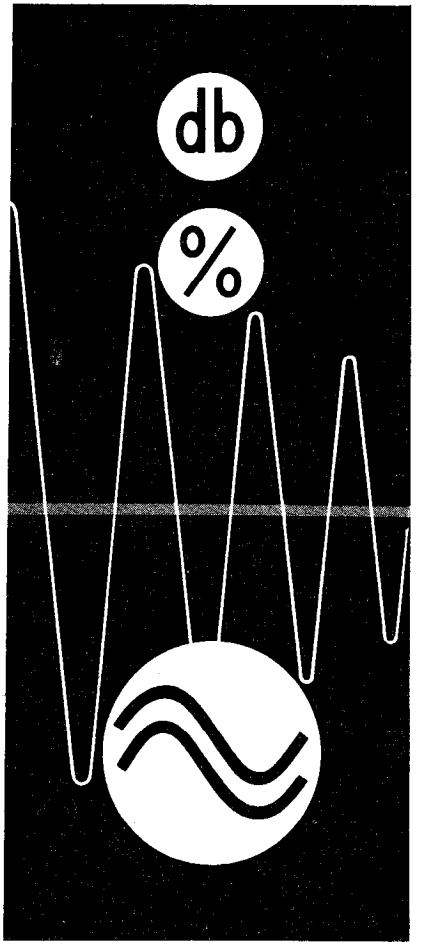
B 1. The Windom aerial is a special form of "L" aerial and displays a degree of preference for certain frequency bands. With this type the lead-in is connected one-third of the way along the horizontal element with the result that one "end" of this is twice as long as the other. A Windom aerial with a horizontal element 15 metres in length will display a preference for wavelengths in the 31 and 16 metre bands. A 12 metre Windom will display the greatest sensitivity in the region of 25 and 13 metres.

B 2. The dipole aerial. This consists of two conductors placed in line, the inwards ends being coupled (one each) to the wires of a twinlead or similar lead-in which will normally consists of copper strands. At the receiver end, the twinlead is connected with one of its wires in the aerial input socket and the other in the "earth" socket. In this case the receiver is not actually connected to the ground. Twin lightning arrestors are required with this type of aerial and these must both be well earthed. The dipole aerial is most sensitive at frequencies corresponding to wavelengths of which the two identical elements of the aerial are one-quarter. Thus a dipole with horizontal elements each 12½ metres in length would be most sensitive at 50 metres (6 megacycles).

Conversely, in designing a dipole for a frequency of 12 megacycles (25 metres) each of the horizontal elements must be 6.25 metres in length. The dipole aerial is also directionally sensitive and the best results will be obtained when it is erected so that the desired signal source is at right angles to the run of the aerial.

Another version of the dipole—the folded dipole—offers better matching to many receivers. This type—as the name may suggest—incorporates a second horizontal element equal in length to the two elements of the single dipole, running parallel to them at a distance of a few centimetres and with its ends joined to the extremities of those elements.

B 3. A single vertical rod may also be used as a tuned aerial. In this role it must be mounted on an insulated base and located immediately above a well conducting source of "earth". A flat or double-sloping roof can serve this purpose or, in the case of a flat roof, metal wires may be stretched out on the roof below the rod, the wires being well earthed. "Tuning" is obtained by making the length of the rod equal to one-quarter of the desired wavelength. With this type, connection to the receiver input can best be made with twin (preferably coaxial) cable.



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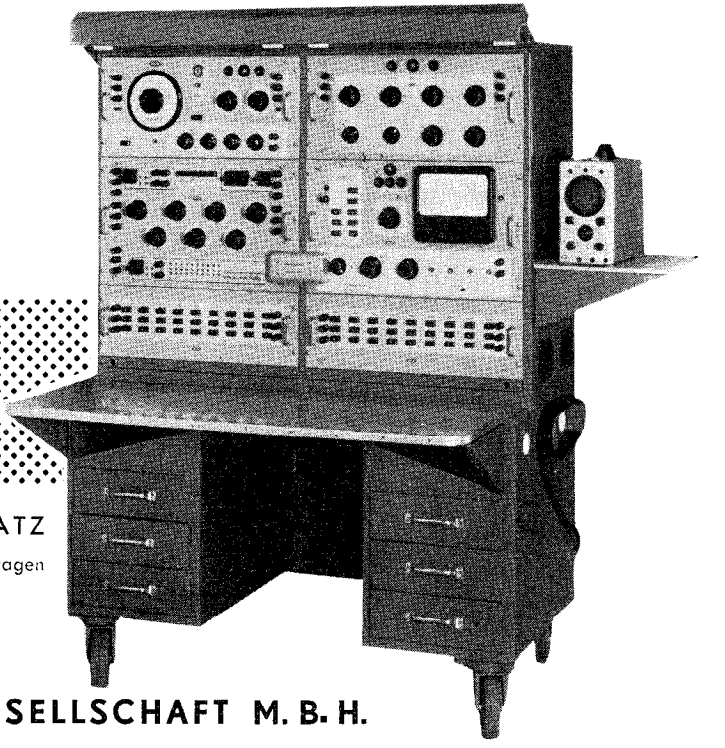

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WHERE TO LISTEN FOR SATELLITE SIGNALS

By George Jacobs,
Chief, Frequency Division
Voice of America,
Washington 25, D.C.
(see page 32).

The 1959 Geneva Radio Regulations, which govern international radio communication, have an important bearing on space communication. These regulations contain, for the first time, frequency bands allocated for research in connection with communications to, from and between satellites in orbit. The details of these allocations, which are expected to remain in effect through 1964, are contained in the following table:

10,003—10,005 kc/s	1700—1710 mc/s
19,990—20,010 kc/s	2290—2300 mc/s
39,986—40,002 kc/s	5250—5255 mc/s
136—137 mc/s	8400—8500 mc/s
183,1—184,1 mc/s	15.15—15.25 gc/s*
400—401 mc/s	31.5—31.8 gc/s*
1427—1429 mc/s	

* *gc/s means gigacycles, which is equivalent to 1,000 megacycles.*

The first satellites launched by the United States of America used frequencies of approximately 108 mc/s, but since 1960 almost all American satellites have contained a beacon or telemetry transmitter in the band 136—137 mc/s. Almost all of the satellites launched by the Soviet Union to date have used the 19,990—20,010 kc/s band, and some have also used the band 39,986—40,002 kc/s as well as frequencies between 143.5 and 143.9 mc/s.

The 1959 Geneva Radio Regulations recognize that research and development in space are moving along rapidly toward the establishment of operational systems, and they recommend that a special international radio conference be held to allocate frequency bands for operational space communication purposes. Such a conference, under the auspices of the International Telecommunication Union, was held in Geneva, Switzerland during October, 1963. This conference, the first to be devoted entirely to space communications, was one of the most important held in the nearly 100-year history of the I.T.U.

The main purpose of the conference was to allocate radio spectrum for space activities and radio astronomy. It was the first conference in the general area of space to be held on such a broad international level, and hundreds of scientists, engineers and government officials from nearly seventy countries attended. The Geneva space conference aroused considerable interest, not only in technical circles, but also in the United Nations. The UN General Assembly recommended that the conference consider those aspects of space communication in which international cooperation will be required, and the UN Economic and Social Council stressed the importance of the conference with reference to peaceful uses of outer space.

At the time that this was being written the final outcome of the conference was not yet known. The conference was expected, however, to allocate bands of frequencies for communication, meteorological and precision navigational satellite systems, as well as for space research satellites, space probes intended for scientific exploration of the moon, various planets, and the solar system, and for manned space-flight. Bands of frequencies were expected to be allocated also for telecommand, telemetering and tracking, as well as radio astronomy. The new allocations will probably not go into effect before 1965, and they will be listed in next year's edition of the *World Radio TV Handbook.*

The following list contains those frequencies on which space orbiting satellites could be heard as of October 1, 1963. Many of the satellites shown on the list are expected to continue to be heard during the remainder of 1963, and into 1964. The satellites which should be heard with the least difficulty are those which transmit CW beacon signals. These signals can usually be identified by their steady tones when the receiver's beat frequency oscillator (BFO) is in the ON position. Telemetry signals are somewhat more difficult to receive since telemetry data, in most cases, is transmitted only upon command from the ground. Telemetry signals usually consist of two or more musical notes being transmitted at the same time, or in the case of the Russian COSMOS satellites, of a series of dots and dashes of different lengths.

Inclination and period data are given in the following list as a further aid in identifying satellites from which signals can be received. The inclination is the angle that the satellite's orbit makes with the equator. If a directional antenna is being used to receive satellite signals, the inclination data can be used for determining the direction from which the satellite's signal should be heard first. The satellite's period is the time it takes, in minutes, for the satellite to complete an orbit. By timing reception on successive orbits, it is often possible to identify the satellite whose signals are being received.

LIST OF FREQUENCIES ON WHICH SATELLITES CAN BE HEARD (AS OF OCTOBER 1, 1963)

Frequency (Mc/s)	Satellite name	Power Watts	Date launched	Inclination Degrees	Period Minutes	Remarks
20.004	COSMOS 14 – USSR	?	13 Apr. 1963	48.5	92	Command telemetry
20.005	COSMOS 17 – USSR	?	22 May 1963	49	95	Command telemetry
108.017	VANGUARD 1 – USA	0.03	17 Mar. 1958	34	134	CW beacon on when in sunlight
136.049	TELSTAR 2 – USA	0.25	7 May 1963	43	225	CW beacon and command telemetry
136.077	ALOUETTE–USA/CAN	0.2	29 Sep. 1962	80	106	Command telemetry
136.140	RELAY 1 – USA	0.25	13 Dec. 1962	48	185	CW beacon and command telemetry
136.234	TIROS 7 – USA	0.05	19 June 1963	58	97	CW beacon and command telemetry
136.406	ARIEL – USA/UK	0.25	26 Apr. 1962	54	101	CW beacon and command telemetry
136.415	1963 – 14C – USA	?	9 May 1963	87	167	CW beacon and command telemetry
136.440	EXPLORER 14 – USA	2.0	2 Oct. 1962	40	2185	CW beacon and command telemetry
136.468	SYNCOM 2 – USA	2.0	26 July 1963	33	1436	Command telemetry

Continued page 54

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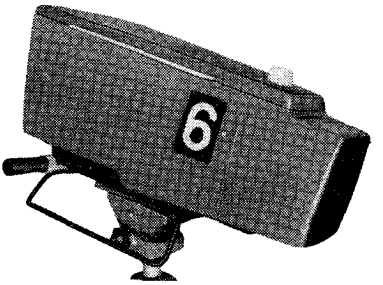

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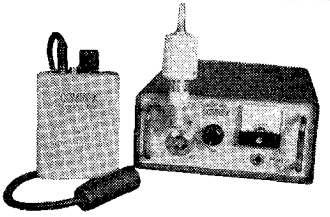

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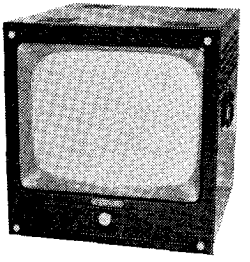

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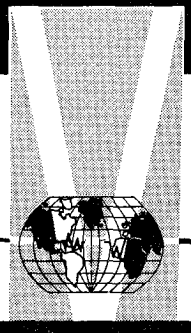

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Frequency (Mc/s)	Satellite Name	Power Watts	Date launched	Inclination Degrees	Period Minutes	Remarks
136.593	ALOUETTE–USA/CAN	0.2	29 Sept. 1962	80	106	Command telemetry
136.620	RELAY I – USA	0.25	13 Dec. 1962	48	185	Command telemetry
136.869	INJUN 3 – USA	2.0/0.2	13 Dec. 1962	70	115	Command telemetry
136.891	1963 – 30B – USA	?	18 July 1963	88	168	CW beacon and command telemetry
136.892	1963 – 14B – USA	?	9 May 1963	87	167	CW beacon and command telemetry
136.922	TIROS 7 – USA	0.05	19 June 1963	58	97	CW beacon and command telemetry
136.978	ALOUETTE–USA/CAN	0.05	29 Sept. 1962	80	106	Continous CW beacon
136.980	SYNCOM 2 – USA	2.0	26 July 1963	33	1436	Command telemetry
150	TRANSIT 4A – USA	?	29 Jan. 1961	67	104	CW tone modulated
150	1963 – 22A – USA	?	16 June 1963	90	100	CW beacon and command telemetry
162	ANNA 1B – USA	0.1	31 Oct. 1962	50	108	CW tone modulated
324	ANNA 1B – USA	0.1	31 Oct. 1962	50	108	CW tone modulated
400	TRANSIT 4A – USA	?	29 Jan. 1961	67	104	CW tone modulated
400	1963 – 22A – USA	?	16 June 1963	90	100	CW beacon and command telemetry

The following list contains frequencies that are expected to be used on satellites that the United States plans to launch during late 1963 and 1964. The list is by no means complete, and some changes in frequency may be made before actual launch time. The list, however, can be used as a guide as new launches are announced.

LIST OF FREQUENCIES TO BE USED ON AMERICAN SATELLITES EXPECTED TO BE LAUNCHED IN LATE 1963 AND 1964.

Frequency (Mc/s)	Satellite name	Power Watts	Expected launch date	Remarks
20.005	S-66 Ionospheric Research	0.25	Fall, 1963	Ground controlled CW beacon
40.010	–	–	–	–
41.010	–	–	–	–
136.170	–	0.40	–	CW beacon and command telemetry
162.000	–	0.10	–	Ground controlled Doppler transmitter
324.000	–	–	–	–
360.090	–	–	–	–
136.02	ECHO 2 Communication satellite	0.02	Early 1964	CW beacon and continuous telemetry
136.17	–	–	–	–
136.56	S-52A – International satellite	0.25	Late 1963	CW beacon and command telemetry
136.11	S-74 – Interplanetary Probe	4.0	Late 1963	Continuous CW beacon and telemetry
136.14	RELAY 2 – Communication satellite	0.25	1964	CW beacon and command telemetry
136.62	–	–	–	–
136.5	NIMBUS – Weather satellite	0.5	1964	CW beacon and command telemetry
136.95	–	5.0	–	Continuous telemetry channel
136.74	OSO-A – Orbiting Solar Observatory	0.2/1.0	–	CW beacon and command telemetry
136.71	OSO-B – –	0.6	–	Continuous telemetry channel
136.29	OSO-C – –	0.6	–	–
136.35	S-48 Ionospheric topside sounder	2.0	–	Command telemetry
136.68	–	.08/.25	–	CW beacon and command telemetry
136.86	S-55 Research	.1/.2	–	CW beacon and command telemetry
136.125	S-74C – Interplanetary Probe	4.0	–	Continuous CW beacon and telemetry
136.20	OGO – Orbiting Geophysical Observatory	0.1/10	–	CW beacon, high power on command
145.9	OSCAR 3, Amateur radio communication satellite	0.5	1964	Repeater communication channel

INTERVISION *Continued from page 26.*

During the years 1963—1965 new main lines on territories of Intervision members will be installed. The main lines will be constructed in such a manner that the international running programmes will be carried out directly, independently of the national networks of the other Intervision members. The recent affiliation of Bulgarian and Rumanian television organizations is an important contribution to the extension and enrichment of Intervision programmes.

The Intervision Technical Coordination Centre is at present situated in the building of the Czechoslovak television studio and there it has at its disposal a dispatching system of four-wire telephone connection with television centres of the member countries of Intervision, with the International Technical Coordination Centre of Eurovision in Brussels as well as with other towns. A project of a new coordination centre of Intervision has been, however, already worked out which will be situated in the new building of the Czechoslovak television organization in Prague.

The choice of this place for the coordination centre has many advantages as an international switching station will be built in Prague, which will connect the main radio relay lines from Hungary, the USSR, Poland, the GDR, Austria and the GFR.

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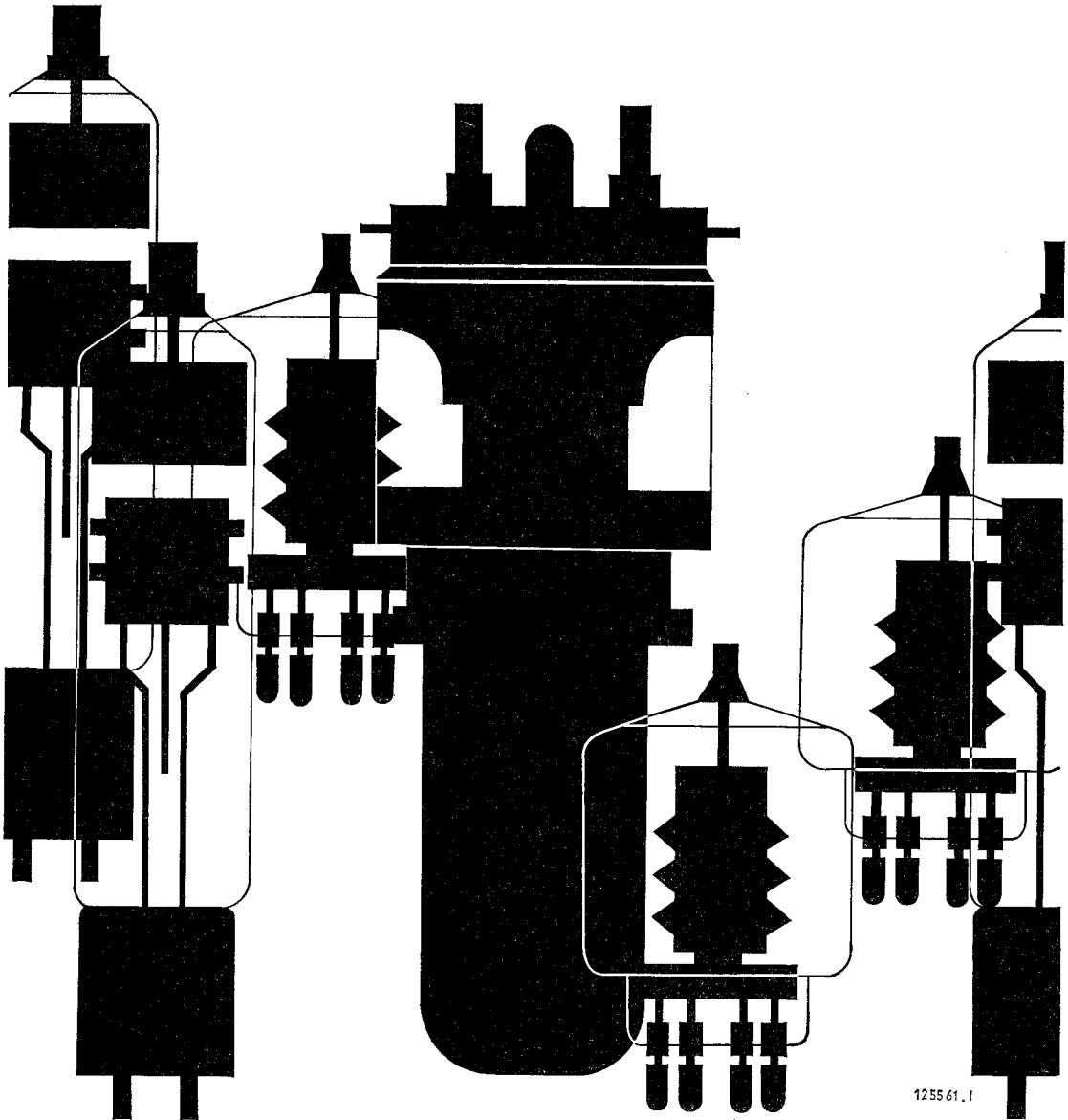

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THE WORLD OF RADIO BROADCASTING

By Roger Legge, U.S.A.

Broadcasting stations are assigned specified bands for operation, as follows:

LONG WAVE (Low Frequency)		MEDIUM WAVE (Medium Frequency)	
Kilocycles	Meters	Kilocycles	Meters
150–285	1053–2000	525–1605	187–571

SHORT WAVE
Tropical Broadcasting Bands

Kcs.	Megacycle Band	Meter Band
2300–2495	2	120
3200–3400	3	90
4750–5060	4	60

HIGH FREQUENCY BROADCASTING BANDS

Kcs.	Megacycle Band	Meter Band
3900– 4000	3.9	75
5950– 6200	6	49
7100– 7300	7	41
9500– 9775	9	31
11700–11975	11	25
15100–15450	15	19
17700–17900	17	16
21450–21750	21	13
25600–26100	25	11

Some broadcasting stations operate outside of the assigned bands, mainly near the edges of these bands.

The *Long Wave Band* (used in Europe) and the *Medium Wave Band* (used worldwide) are used mainly for domestic broadcasting, but are used also for some international broadcasting to adjacent countries. Although long and m. w. stations are normally heard only for moderate distances, longdistant reception is possible over dark transmission paths, mainly during the fall, winter and spring months in the reception area.

The *Tropical Broadcasting Bands* are assigned for use for *domestic* broadcasting in tropical areas, where high atmospheric noise levels limit the service area of medium wave stations. DX reception on these bands is best when the transmission path between the transmitter and receiver is all or mostly in darkness. These bands are used mainly by stations in Latin America, Africa, South and Southeast Asia, and Oceania.

The *High Frequency Broadcasting Bands*, between 3.9 and 26.1 megacycles, are used for both international and domestic broadcasting. These bands are allocated for worldwide use, except that the 3.9 and 7 mc. bands are not allocated for broadcasting in the American area. Also, the 3.90 to 3.95 mc. portion of the 75 meter band is used only in Asia and Oceania.

Reception conditions on these bands vary according to the time of day and season of the year. Most of the international broadcasting stations make seasonal changes in frequency usage, mainly on the first Sunday of March, May, September and November. In addition, frequency and time changes are made at other times during the year, due to interference, change of program times, addition of new transmitters etc. A large percentage of the domestic broadcasting stations operating in the high frequency bands do not make seasonal frequency changes, but some, particularly the stations in India, Pakistan, USSR and South Africa do make seasonal shifts.

The *3, 6 and 7 mc. bands* are best for distant reception when the transmission path is all or mostly in darkness, and during fall to spring months in the reception area, when the local atmospheric noise level is lowest. Reception at any point is therefore best from the east from shortly before sunset until several hours before dawn, from the west between late evening and dawn, and from the north and south at any time during the night hours.

The *9 and 11 mc. bands* are best for long distant transmission on dark or partially dark paths, and for medium distances during daylight hours. In Europe and North America, night reception during the winter months is mainly from stations to the south during the present low phase of the sun spot cycle, since these bands are then too high for satisfactory east-west and west-east transmission.

The *15 and 17 mc. bands are*, in general, best during periods of daylight on the transmission path. However, night paths are open during the summer months, also north-south and south-north paths during the fall and spring.

The *21 and 25 mc. bands* are primarily daylight paths, and are best during winter months. There is practically no 25 mc. operation during the present low part of the solar activity cycle.

Shortwave Broadcasting Listening.

The first requirement for obtaining satisfactory reception of shortwave broadcasting stations is the availability of a suitable receiver. Receivers vary from small portable transister sets to large communications type receivers. If you are purchasing a new receiver, the type to get will depend on the intended use and the amount which you are able or willing to spend.

Adequate band coverage is one of the primary requirements of a good receiver. Coverage of the 6, 7, 9, 11 and 15 mc. bands should be included, with the 17 and 21 mc. bands desirable but less necessary. If you live in a tropical area where local stations operate in the Tropical Broadcasting Bands, inclusion of the 3 and 4 mc. bands is also essential.

Good sensitively and selectivity are need in order to permit receiving desired stations with adequate strength and to separate them from other stations on closely adjacent frequencies. Since channels are spaced at 5 kc. intervals, good selectivity is essential in these days of crowded conditions on the broadcasting bands. The best way to determine whether a receiver has these characteristics is to try it out and observe the results obtained.

Band-spread is a further essential to look for in a receiver. Since there are from 40 to 70 five kc. channels in each of the short wave broadcasting bands, the spreading of each band over an adequate dial space is desirable, in order to facilitate locating stations on the dial, tuning them in properly, and retuning to a station on a latter date. Calibrated band-spread is best. Some sets have electrical band-spread, distributing a band over a separate dial, usually with a 1-100 scale, facilitating tuning of stations once the dial has been calibrated.

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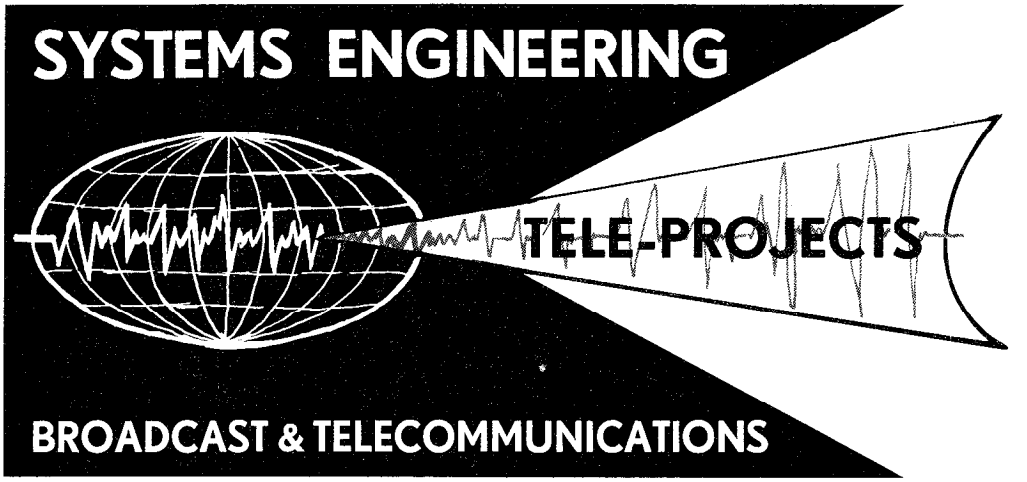

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SOLAR ACTIVITY 1964

by Professor Dr. M. Waldmeier

Solar activity is still on the declining branch, but already rather low and approaching minimum. The annual means of the sunspot-numbers since the last maximum are as follows: 1957 - 190 — 1958 - 185 — 1959 - 159 — 1960 - 112 — 1961 - 54 — 1962 - 38.

For 1963 it may be around 25. For that year we had predicted for the smoothed sunspot-numbers a drop from 28 at the beginning of the year to about 15 at its end. Actually the smoothed sunspot-numbers came to 29 at the beginning of 1963, whereas that for the end of the year cannot be determined until the middle of 1964. For the year 1964 the smoothed sunspot-numbers will decrease from about 18 at the beginning to about 10 at the end.

The question now arises for how long solar activity will still be decreasing and at what time the activity will increase again. It is not probable that the minimum of the sunspot activity will occur before the end of 1964. It is true that on August 28, 1963 the first very small sunspot of the new cycle has been observed at a latitude of 34° north. Despite of this spot we are still rather more than a year ahead of the minimum; this will very probably be a weak one with a smoothed sunspot-number not higher than about 5. As the predicted number for the end of 1964 is 10, the minimum will not occur before 1965. The time of the minimum depends very much on the rising rate of the coming cycle. As this is to be expected one with a weak maximum, it is not excluded that the minimum will be delayed up to 1966.

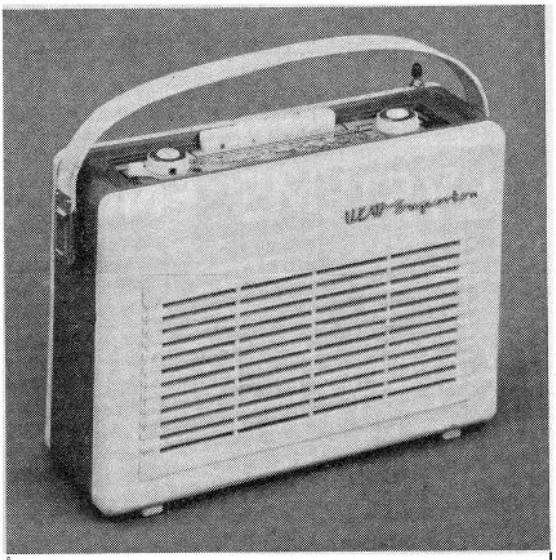
On the other hand the early start of the new cycle in August was followed by a larger spot group in the beginning of October. In the case that the new cycle activity would increase more rapidly than expected, it would not be excluded that the period of low activity would be a short one and that the minimum could take place in 1964.

In any case it is quite sure that solar activity will be at a low level throughout 1964 and 1965. As the conditions of short wave transmissions are not sensibly different whether the sunspot-number is 0 or 5 or 10, we have to expect throughout the next two years a quiet ionosphere with the minimum electron-density. These conditions will be the same as during the sunspot-minimum of 1954. Critical frequencies will be at their lowest values and relatively long waves have to be used.

As in the past years the Swiss s.w. sce emits regularly the daily relative-numbers for the expired month as well as predictions for the coming six months. The present emission-time-table valid to May 2nd 1964 is as follows:

English: Gt Britain	20.35 GMT*)	6055, 7110 kc
	02.35 GMT***)	6165, 9535, 9665 kc
No America	15.50 GMT*)	15315 kc
Australia, N.Z. Japan	10.05 GMT*)	9655, 17720, 21525 kc
Far East	13.50 GMT*)	11865, 15315, 17845 kc
India, Pakistan	15.50 GMT*)	9665, 11865 kc
Near, Middle Ea.	17.50 GMT*)	6055, 9665 kc
Africa	08.05 GMT*)	15305, 15315, 17795 kc
Spanish: Spain I	22.20 GMT*)	6055, 7110 kc
Spain II	11.30 GMT**)	7110, 9665 kc
South America	01.10 GMT***)	6165, 9535, 11865 kc
Central America	04.10 GMT***)	6050, 6165, 9535 kc

*) Sat's: Dec 7, 1963, Jan 4, 1964—Feb 8—March 7—April 4—May 2. — **) Sun's: Dec. 8, 1963, Jan 5, 1964—Feb 9—March 8—April 5. — ***) Nights from Sat. to Sun.



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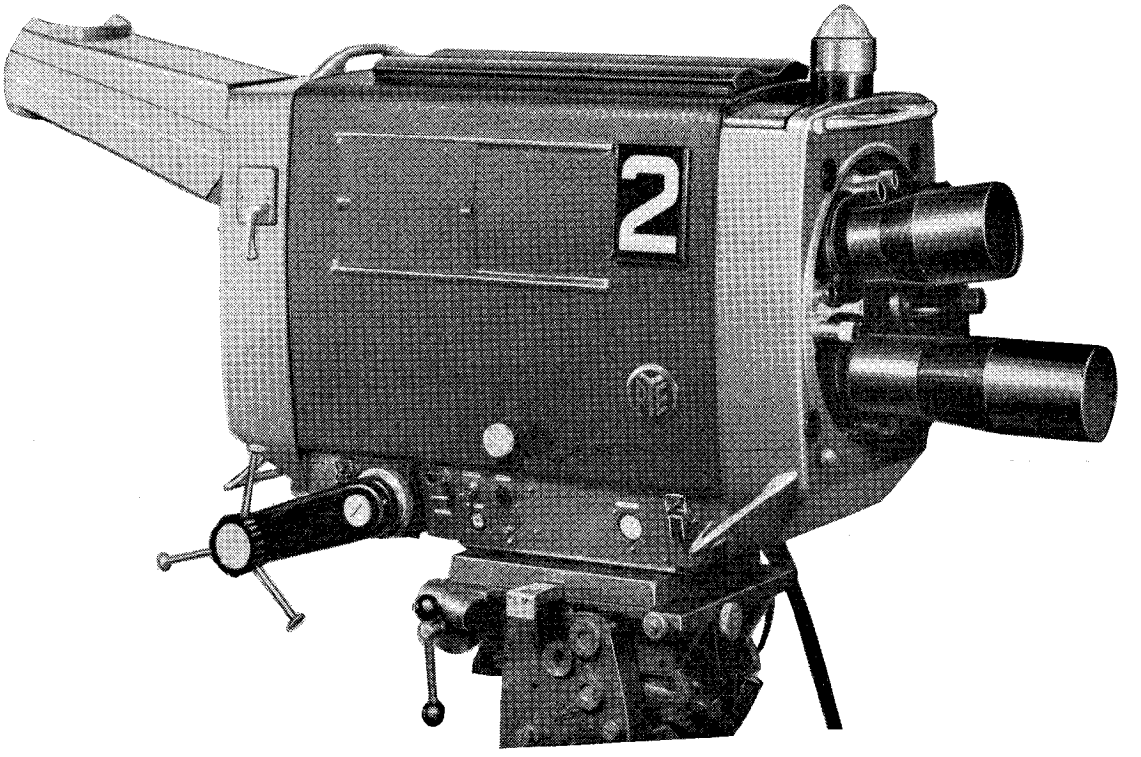

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SHORT-WAVE RECEPTION CONDITIONS EXPECTED DURING 1964

By George Jacobs, Chief Frequency Division, Voice of America

The present sunspot cycle continues to decline and is now slowly approaching its end. The cycle, which began during April 1954 and reached a record-breaking peak of 201 during March 1958, had declined to a smoothed sunspot number of 30 by December 1962. During 1963 it is estimated that solar activity declined to approximately 17 by the year's end. Solar activity is expected to decline further during 1964, with the smoothed sunspot count predicted to range from 16 to 5. This low-range of solar activity occurred last during the year 1953.

During August 1963, the Swiss Federal Solar Observatory observed high on the face of the sun the first sunspots of what will become the next sunspot cycle. From past experience, this is a good indication that the end of the present cycle is approximately a year away. According to latest estimates, the present cycle is expected to reach a minimum value sometime between November 1964, and April 1965.

The sunspot count is an indication of the intensity of ionization in the earth's atmosphere. In general, the greater the number of sunspots the greater the intensity of ultraviolet radiation reaching the ionosphere and the higher the frequencies the ionosphere can reflect. During 1957-58, when the sunspot count was higher than ever recorded previously, short-wave conditions in the 26, 21, 17 and 15 mc broadcast bands (11, 13, 16 and 19 meter bands) were at their best, while conditions in the lower megacycle bands were relatively poor.

As the sunspot count decreases, reception of the high megacycle bands deteriorates, while reception of the lower bands improves steadily. During 1963, the best bands for long-distance reception were generally the 17 and 15 mc bands (16 and 19 meters) during the daylight hours and the 9, 7 and 6 mc bands (31, 41 and 49 meters) during the hours of darkness. A further decrease in solar activity is predicted for 1964, with the result that reception of the higher frequency bands is expected to continue to deteriorate, while reception of the lower frequency bands is expected to improve.

A general summary of expected conditions in 1964, by meter band:

11 meters: Very little long-distance propagation possible in this band during the low period of the sunspot cycle. Practically useless for broadcasting during 1964.

13 meters: Some broadcasting stations will be heard in this band, especially during the daylight hours of the winter months. In general, however, this band is expected to be of only limited use during 1964.

16 meters: Trans-oceanic openings during the daylight hours of the fall, winter and spring months will be more common than the 13 meter band, and over circuits to and from the southern hemisphere there should be good activity during all seasons of 1964.

19 meters: This is expected to be the best band for long-distance reception during the daytime hours. During the summer months reception should also be possible during the early evening hours.

25 meters: This should be a good band during the daylight hours for shorter distance openings, between approximately 750 and 2100 miles (1250 and 3500 km). Long-distance reception should be possible during the late afternoon and early evening hours. Very little reception on this band is expected during the hours of darkness.

31 meters: This should also be a good band for daytime reception over relatively short distances, on the order of 500 and 1000 miles (850 to 1700 km). Fairly good long-distance reception should be possible during the hours of darkness during the late spring and summer months. During the night time hours of the winter months, reception is expected to be generally poor.

41 and 49 meters: Good short-range reception is expected during the daytime up to distances of approximately 750 miles (1250 km). These will be the best bands for nighttime DX for most of the year, with the possible exception of the summer when 31 meters will also be good. During the winter months, 49 meters will be the most used band with extreme crowding and heavy interference expected. Since this is the lowest band allocated internationally, many broadcasters will be using it, since it will be the only one propagationally of value.

60, 80 and 160 meters: During the winter months, when noise levels are low, these bands will be more useful for DX than at any time since 1955. In addition, some DX is possible during the spring and fall on quiet nights. Some short-range openings are also likely during the late afternoon, evening, nighttime and early morning periods.

For more specific reception information, please refer to the "most suitable meter band" chart on the following page.

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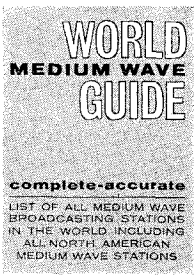
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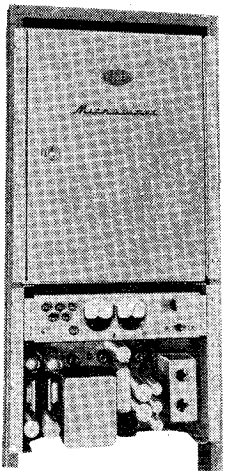
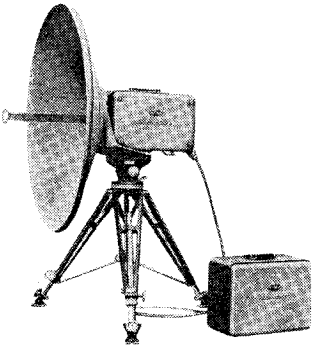
Lindorffsallé 1, Hellerup, Denmark, and through our representatives.





RAYTHEON MICROWAVE RELAY SYSTEMS

Raytheon's complete line of high-reliability, wide-band microwave relay equipment provides point-to-point FM transmission of high quality, black and white or color television signals and program audio, wideband data or message circuits. Power outputs of 0.1 watt to 1 watt, in the frequency bands of 5925 Mc to 7450 Mc and 10,700 Mc to 12,700 Mc are provided. Dual Link Hot Standby equipment for dependable studio-transmitter circuits and Type B Video Clamper Amplifiers which remove low frequency interference are also available.

Raytheon systems are also supplied in rack mounted styles and in compact luggage-type cases for portable applications. A full line of accessories and auxiliary equipment is available.

Write for FREE Raytheon Microwave System Planning Kit

Includes all technical data—together with profile and graph paper and special slide rule—for preparing microwave path surveys and site selection; describes transmission objectives, signal-to-noise factors; provides antenna system calculators, tables for rapid calculation of single-link and multi-hop performance. The Raytheon Microwave System Planning Kit is available, by request on your letter head. Please include your title and function. For your Kit and technical data on Raytheon's complete line of microwave relay systems, write: Raytheon Company, International Sales and Services, Dept. A, Lexington, Massachusetts, U.S.A.

Set Manufacturers:

RAYTHEON TV SET ASSEMBLIES FOR PORTABLES AND CONSOLES

Raytheon offers complete TV Kits, or components and subassemblies in any combination you require for use with locally obtained material to produce 19" and 23" receivers. Features include printed boards, minimum assembly and testing requirements and full engineering assistance. For complete details write: Raytheon Company, International Sales and Services, Dept. A Lexington, Massachusetts, U.S.A.

RAYTHEON

FREQUENCY BANDS ALLOCATED TO BROADCASTING, TELEVISION AND AMATEURS

The table is based upon the Geneva Regulations 1959. Some bands are shared with other services. In certain countries exceptions from the table below apply. **Region 1:** Europe, U.S.S.R. in Asia, Africa. **Region 2:** N. and S. America, Northeast Pacific. **Region 3:** Asia exc. U.S.S.R., Australia, N. Zealand, part of Pacific. [1]) Certain countries only, max 10W, special agreements.

	Region 1 kc	Region 2 kc	Region 3 kc
BC	150–285		
BC	525–1605	525–1605	525–1605
AMAT	1715–2000[1])	1800–2000	1800–2000
BC(trop)	2300–2498	2300–2495	2300–2495
BC(trop)	3200–3400	3200–3400	3200–3400
AMAT	3500–3800	3500–4000	3500–3800
BC	3950–4000		3900–4000
BC(trop)	4750–4995	4750–4995	4750–4995
BC(trop)	5005–5060	5005–5060	5005–5060
BC	5950–6200	5950–6200	5950–6200
AMAT	7000–7100	7000–7300	7000–7100
BC	7100–7300		7100–7300
BC	9500–9775	9500–9775	9500–9775
BC	11700–11975	11700–11975	11700–11975
AMAT	14000–14350	14000–14350	14000–14350
BC	15100–15450	15100–15450	15100–15450
BC	17700–17900	17700–17900	17700–17900
AMAT	21000–21450	21000–21450	21000–21450
BC	21450–21750	21450–21750	21450–21750
BC	25600–26100	25600–26100	25600–26100
AMAT	28000–29700	28000–29700	28000–29700

	Region 1 Mc West	Region 1 Mc East	Region 2 Mc	Region 3 Mc
BC(TV)	41–68	41–66		44–50
AMAT			50–54	50–54
BC(TV)			54–72	54–68
BC(TV)			76–88	
BC(FM)	87.5–100	66–73	88–108	87–108
BC(TV)		76–100		
AMAT	144–146		144–148	144–148
BC(TV)	174–216		174–216	170–216
AMAT			220–225	
AMAT	430–440		420–450	420–450
BC(TV)	470–960		470–890	470–585
BC(TV)				610–960
AMAT	1215–1300		1215–1300	1215–1300
AMAT	2300–2450		2300–2450	2300–2450
AMAT			3300–3500	3300–3500
AMAT	5650–5850		5650–5925	5650–5850
AMAT	10000–10500		10000–10500	10000–10500
BC	11700–12700		11700–12700	11700–12700
AMAT	21000–22000		21000–22000	21000–22000

CALL SIGN ALLOCATIONS

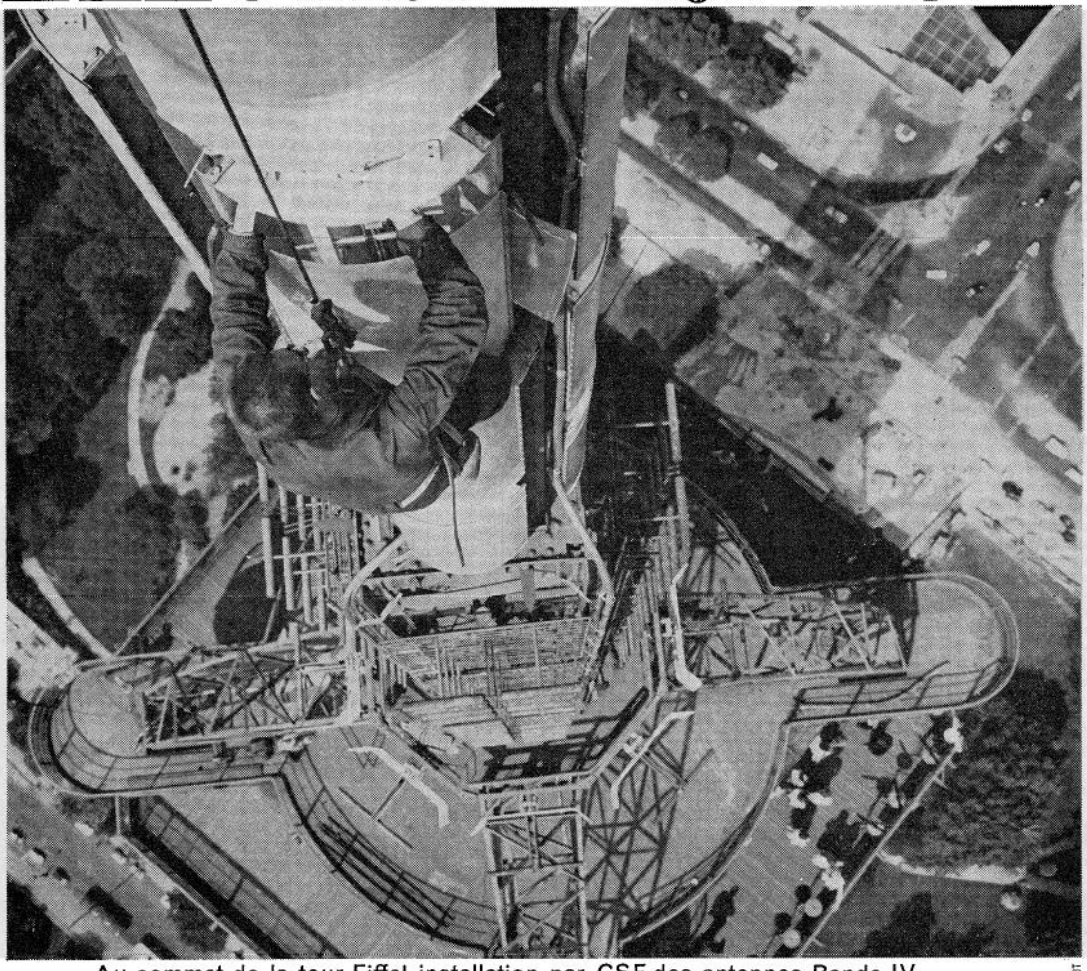
(by alphabetical order of call signs)

The first character or the first two characters of a call sign indicates the nationality of the station using it.

AAA-ALZ USA
AMA-AOZ Spain
APA-ASZ Pakistan
ATA-AWZ India
AXA-AXZ Australia
AYA-AZZ Argentine
BAA-BZZ China
CAA-CEZ Chile
CFA-CKZ Canada
CLA-CMZ Cuba
CNA-CNZ Morocco
COA-COZ Cuba
CPA-CPZ Bolivia
CQA-CRZ Portug. prov.
CSA-CUZ Portugal
CVA-CXZ Uruguay
CYA-CZZ Canada
DAA-DTZ Germany
DUA-DZZ Philippines
EAA-EHZ Spain
EIA-EJZ Ireland
EKA-EKZ USSR
ELA-ELZ Liberia
EMA-EOZ USSR
EPA-EQZ Iran
ERA-ERZ USSR
ESA-ESZ USSR (Estonia.)
ETA-ETZ Ethiopia
EUA-EWZ USSR (Bielorussia)
EXA-EZZ USSR
FAA-FZZ France & terr.
GAA-GZZ U.K.
HAA-HAZ Hungary
HBA-HBZ Switzerland
HCA-HDZ Ecuador
HEA-HEZ Switzerland
HFA-HFZ Poland
HGA-HGZ Hungary
HHA-HHZ Haiti
HIA-HIZ Dominican Rep.
HJA-HKZ Colombia
HLA-HMZ Korea Rep.
HNA-HNZ Iraq
HOA-HPZ Panama
HQA-HRZ Honduras Rep.
HSA-HSZ Thailand
HTA-HTZ Nicaragua
HUA-HUZ El Salvador
HVA-HVZ Vatican State
HWA-HYZ France & terr.
HZA-HZZ Saudi Arabia
IAA-IZZ Italy[1]
JAA-JSZ Japan
JTA-JVZ Mongolia
JWA-JXZ Norway
JYA-JYZ Jordan
JZA-JZZ We. New Guinea
KAA-KZZ USA
LAA-LNZ Norway
LOA-LWZ Argentine
LXA-LXZ Luxembourg
LYA-LYZ USSR (Lithuania)
LZA-LZZ Bulgaria
MAA-MZZ U.K.
NAA-NZZ USA
OAA-OCZ Peru
ODA-ODZ Lebanon
OEA-OEZ Austria
OFA-OJZ Finland
OKA-OMZ Czechoslov.
ONA-OTZ Belgium
OUA-OZZ Denmark
PAA-PIZ Netherlands
PJA-PJZ Neth. Antilles
PKA-POZ Indonesia
PPA-PYZ Brazil
PZA-PZZ Surinam
QAA-QZZ Sce. abbrev.
RAA-RZZ USSR
SAA-SMZ Sweden
SNA-SRZ Poland
SSA-SSM UAR
SSN-STZ Sudan
SUA-SUZ UAR
SVA-SZZ Greece
TAA-TCZ Turkey
TDA-TDZ Guatemala
TEA-TEZ Costa Rica
TFA-TFZ Iceland
TGA-TGZ Guatemala
THA-THZ France & terr.
TIA-TIZ Costa Rica
TJA-TJZ Cameroon
TKA-TKZ France & terr.
TLA-TLZ C. Africa
TMA-TMZ France & terr.
TNA-TNZ Brazzaville
TOA-TQZ France & terr.
TRA-TRZ Gabon
TSA-TSZ Tunisia
TTA-TTZ Tchad
TUA-TUZ Ivory Coast
TVA-TXZ France & terr.
TYA-TYZ Dahomey
TZA-TZZ Mali
UAA-UQZ USSR
URA-UTZ USSR (Ukr.)
UUA-UZZ USSR
VAA-VGZ Canada
VHA-VNZ Australia
VOA-VOZ Canada
VPA-VSZ British overseas terr.
VTA-VWZ India
VXA-VYZ Canada
VZA-VZZ Australia
WAA-WZZ USA
XAA-XIZ Mexico
XJA-XOZ Canada
XPA-XPZ Denmark
XQA-XRZ Chile
XSA-XSZ China
XTA-XTZ Upper Volta
XUA-XUZ Cambodia
XVA-XVZ Vietnam
XWA-XWZ Laos
XXA-XXZ Portuguese overseas terr.
XYA-XZZ Burma
YAA-YAZ Afghanistan
YBA-YHZ Indonesia
YIA-YIZ Iraq
YJA-YJZ N. Hebrides
YKA-YKZ Syrian Arab Rep.
YLA-YLZ USSR (Latvia)
YMA-YMZ Turkey
YNA-YNZ Nicaragua
YOA-YRZ Roumania
YSA-YSZ El Salvador
YTA-YUZ Yugoslavia
YVA-YYZ Venezuela
YZA-YZZ Yugoslavia
ZAA-ZAZ Albania
ZBA-ZJZ U.K. overseas terr.
ZKA-ZMZ New Zealand
ZNA-ZOZ U.K. overseas terr.
ZPA-ZPZ Paraguay
ZQA-ZQZ U.K. overseas terr.
ZRA-ZUZ So. Africa
ZVA-ZZZ Brazil
2AA-2ZZ U.K.
3AA-3AZ Monaco
3BA-3FZ Canada
3GA-3GZ Chile
3HA-3UZ China
3VA-3VZ Tunisia
3WA-3WZ Vietnam
3XA-3XZ Guinea
3YA-3YZ Norway
3ZA-3ZZ Poland
4AA-4CZ Mexico
4DA-4IZ Philippines
4JA-4LZ USSR
4MA-4MZ Venezuela
4NA-4OZ Yugoslavia
4PA-4SZ Ceylon
4TA-4TZ Peru
4UA-4UZ U.N.
4VA-4VZ Haiti
4WA-4WZ Yemen
4XA-4XZ Israel
4YA-4YZ Int. Civil Aviation Org.
4ZA-4ZZ Israel
5AA-5AZ Libya
5BA-5BZ Cyprus
5CA-5GZ Morocco
5HA-5IZ Tanganyika
5JA-5KZ Colombia
5LA-5MZ Liberia
5NA-5OZ Nigeria
5PA-5QZ Denmark
5RA-5SZ Malagasy
5TA-5TZ Mauritania
5UA-5UZ Niger
5VA-5VZ Togolese
5WA-5WZ We. Samoa
5XA-5XZ Uganda
5YA-5ZZ Kenya
6AA-6BZ UAR
6CA-6CZ Syria
6DA-6JZ Mexico
6KA-6NZ Korea Rep.
6OA-6OZ Somaliland
6PA-6SZ Pakistan
6TA-6UZ Sudan
6VA-6WZ Senegal
6XA-6XZ Malagasy
6YA-6YZ Jamaica
6ZA-6ZZ Not allocated
7AA-7IZ Indonesia
7JA-7NZ Japan
7OA-7QZ Not allocated
7RA-7RZ Algeria
7SA-7SZ Sweden
7TA-7YZ Algeria
7ZA-7ZZ Saudi Arabia
8AA-8IZ Indonesia
8JA-8NZ Japan
8OA-8RZ Not allocated
8SA-8SZ Sweden
8TA-8YZ India
8ZA-8ZZ Saudi Arabia
9AA-9AZ San Marino
9BA-9DZ Iran
9EA-9FZ Ethiopia
9GA-9GZ Ghana
9HA-9JZ Not allocated
9KA-9KZ Kuwait
9LA-9LZ Sierra Leone
9MA-9MZ Malaya
9NA-9NZ Nepal
9OA-9TZ Léopoldville
9UA-9UZ Burundi
9VA-9WZ Not allocated
9XA-9XZ Rwanda Rep.
9YA-9ZZ Not allocated

[1] and Terr. under mandate U.N.

ELECTRONIQUE CSF



Au sommet de la tour Eiffel, installation par CSF des antennes Bande IV de l'émetteur principal de la Radiodiffusion-Télévision-Française.

S.P.I. 51-234 - MÉNARD - PHOTOS R. BOUILLOT

La **CSF** développe la puissance de l'électronique dans toutes ses branches

CSF - COMPAGNIE GÉNÉRALE DE TÉLÉGRAPHIE SANS FIL
79, BOULEVARD HAUSSMANN/PARIS 8e/ANJ. 84-60

csf

WORLD TIME IN ALL COUNTRIES

DIFFERENCE BETWEEN LOCAL TIME AND GREENWICH MEAN TIME

The differences marked + indicate the number of hours ahead of G.M.T. Differences marked ÷ indicate number of hours behind G.M.T.

	Normal clock Time	Summer Time
Aden	+3	+3
Afghanistan	+4½	+4½
Alaska[1]	÷8	÷8
Albania	+1	+1
Algeria	GMT	GMT
Andorra	+1	+1
Angola	+1	+1
Argentina	÷3	÷3
Australia		
a) Victoria New South Wales, Queensland, Tasmania, (Brisbane, Melbourne, Sydney)	+10	+10
b) N. Territory S. Australia	+9½	+9½
c) W. Australia	+8	+8
Austria	+1	+1
Azores	÷2	÷1 1/4-1/10
Bahamas	÷5	÷5
Bahrain	+4	+4
Barbados(W.I.)	÷4	÷4
Basutoland	+2	+2
Bechuanaland	+2	+2
Belgium	+1	+1
Bermuda	÷4	÷4
Bolivia	÷4	÷4
Borneo, British North	+8	+8
Brazil		
a) Eastern and Coastal.	÷3	÷3
b) Manaos	÷4	÷4
c) Acre	÷5	÷5
Brunei, No. Borneo	+8	+8
Bulgaria	+2	+2
Burma	+6½	+6½
Burundi	+2	+2
Cambodia	+7	+7
Cameroon	+1	+1
Canada		25/4-25/9
a) New Foundland	÷3½	÷2½
b) Atlantic (Labrador, Nova Scotia)	÷4	÷3
c) Eastern (Ontario) Quebec*	÷5	÷4
d) Central (Manitoba)	÷6	÷5
e) Mountain (Alberta)	÷7	÷6
f) Pacific (Br. Columbia)	÷8	÷7
g) Yukon	÷9	÷8
Canary Islands	GMT	GMT
Cape Verde Isl.	÷2	÷2
Central African Rep.	+1	+1
Ceylon	+5½	+5½
Chad	+1	+1
Chatham Isl.	+12¾	+12¾
Chile	÷4	÷4
China		
Peoples Rep.	+8	+8
Shanghai	+8	+8
Canton	+8	+8
Lhasa	+6	+6
Urumchi	+6	+6
Taipei	+8	+9 1/6-30/9
Colombia	÷5	÷5
Comores Isl.	+3	+3
Congo, Rep.		
Leopoldville	+1	+1
Elisabethville	+2	+2
Congo (Franco African)	+1	+1
Cook Isl.	÷10½	÷10½
Costa Rica	÷6	÷6
Cuba (W.I.)	÷5	÷5
Curacao	÷4½	÷4½
Cyprus	+2	+2
Czechoslovakia	+1	+1
Dahomey	+1	+1
Denmark	+1	+1
Dominican R.	÷5	÷5
Ecuador	÷5	÷5
Egypt	+2	+3 1/5-30/9
El Salvador	÷6	÷6
Ethiopia	+3	+3
Falkland Islands	÷4	÷4
Faroe Islands	GMT	GMT
Fiji Islands	+12	+12
Finland	+2	+2
France	+1	+1
Gabon	+1	+1
Gambia	GMT	GMT
Germany	+1	+1
Gibraltar	+1	+1
Gilbert Isl.	+12	+12
Ghana	GMT	GMT
Great Britain	GMT	+1** 1/4-1/10
Greece	+2	+2
Greenland	÷3	÷3
Guadeloupe	÷4	÷4
Guam	+10	+10
Guatemala	÷6	÷6
Guiana (British)	÷3¾	÷3¾
Guiana (Dutch)	÷3½	÷3½
Guiana (French)	÷4	÷4
Guinea	GMT	GMT
Guinea (Port.)	÷1	÷1
Guinea (Sp.)	+1	+1
Haiti (W.I.)	÷5	÷5
Hawaii	÷10	÷10
Holland	+1	+1
Honduras(Rep.)	÷6	÷6
Honduras (Brit.)	÷6	÷6
Hong Kong	+8	+9 1/4-31/10
Hungary	+1	+1
Iceland	÷1	GMT 3/4-31/10
India	+5½	+5½
Indonesia		
a)North Sumatra	+6½	+6½
b)South –	+7	+7
c)Java, Borneo, Bali	+7½	+7½
d)Celebes	+8	+8
e)Molucca Isl.	+8½	+8½
Iran (Persia)	+3½	+3½
Iraq	+3	+3
Ireland (Eire)	GMT	+1 15/4-15/10
Israel	+2	+2
Italy	+1	+1
Ivory Coast	GMT	GMT
Jamaica (W.I.)	÷5	÷5
Japan	+9	+9
Jordan	+2	+2
Kenya	+3	+3
Korea, Rep.	+9	+9
Korea,Dem.Rep.	+9	+9
Kuwait	+3	+3
Laos	+7	+7
Lebanon	+2	+2
Leeward Isl.	÷4	÷4
Liberia	÷¾	÷¾
Libya	+2	+2
Luxembourg	+1	+1
Macau	+8	+8
Madeira	÷1	GMT 1/4-1/10
Malaya	+7½	+7½
Malgache Rep.	+3	+3
Mali	GMT	GMT
Malta	+1	+1
Marshall Isl.	+12	+12
Martinique	÷4	÷4
Mauretania	GMT	GMT
Mauritius	+4	+4
Mexico[2]	÷6	÷6
Monaco	+1	+1
Mongolia(Outer)	+8	+8
Morocco	GMT	GMT
Mozambique	+2	+2
Nepal	+5.40	+5.40
Neth. Antilles	÷4½	÷4½
New Caledonia	+11	+11
New Guinea (Australian)	+10	+10
New Hebrides	+11	+11
New Zealand	+12	+12
Nicaragua	÷6	÷6
Niger	+1	+1
Nigeria	+1	+1
Norfolk Isl.	+11½	+11½
Norway	+1	+1
Pakistan		
a) West	+5	+5
b) East	+6	+6
Panama	÷5	÷5
Papua	+10	+10
Paraguay	÷4	÷4
Peru	÷5	÷5
Philippines	+8	+8
Poland	+1	+2
Portugal	GMT	+1 1/4-1/10
Puert.Rico(W.I.)	÷4	÷4
Reunion	+4	+4
Rhodesia (No.+So.)	+2	+2
Rumania	+2	+2
Rwanda	+2	+2
Ryukyu Isl.	+9	+9
Samoa Isl.	÷11	÷11
S. Pierre	÷3	÷3
S. Tomé	GMT	GMT
Sarawak	+8	+8
Saudi Arabia	+3	+3
Senegal	GMT	GMT
Seychelles	+4	+4
Sierra Leone	GMT	GMT
Singapore	+7½	+7½
Solomon Isl.	+11	+11
Somali	+3	+3
So. Africa	+2	+2
Spain	+1	+1
Sudan	+2	+2
Surinam	÷3½	÷3½
Swan Islands	÷6	÷6
Sweden	+1	+1
Switzerland	+1	+1
Syria	+2	+2
Tanganyika	+3	+3
Tahiti	÷10	÷10
Tasmania	+10	+10
Thailand	+7	+7
Timor	+8	+8
Togo	GMT	GMT
Tonga Islands	+13	+13
Trinidad(B.W.I.)	÷4	÷4
Tunesia	+1	+1
Turkey	+2	+2
Uganda	+3	+3
Upper Volta	GMT	GMT
Uruguay	÷3	÷3
U.S.S.R.		
Moscow, Leningrad	+3	+3
Baku	+4	+4
Sverdlovsk	+5	+5
Tashkent	+6	+6
Novosibirsk	+7	+7
Irkutsk	+8	+8
Yakutsk	+9	+9
Khabarovsk	+10	+10
Magadan	+11	+11
Petropavlovsk	+12	+12
Anadyr	+13	+13
U.S.A.		
a) Eastern Zone	÷5	÷4 1/5-1/10
b) Central Zone	÷6	÷5 1/5-1/10
c) MountainZone	÷7	÷6
d) Pacific Zone	÷8	÷7 1/5-1/10
Vatican	+1	+1
Venezuela	÷4½	÷4½
Vietnam (Rep.)	+8	+8
Vietnam (Dem. Rep.)	+7	+7
Virgin Isl.	÷4	÷4
West Papua	+9½	+9½
Windward Isl.	÷4	÷4
Yemen	+3	+3
Yugoslavia	+1	+1
Zanzibar	+3	+3

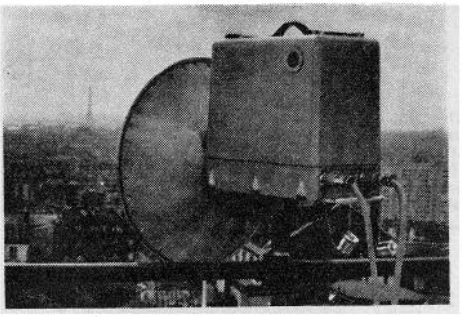
* exc. the watch shore and Gaspé regions: 5 h. behind GMT.

** Summer Time in Britain starts at 02 hours GMT after the 3rd Sat. in Apr. (or 2nd Sat. if 3rd is Easter weekend) and runs until 02 h. GMT after the first Sat. in Oct.

1) a) Ketchikan to Skagway ÷8
b) Skagway to 141°W. long ÷9
c) 141°W. long to 162°W. long ÷10
d) 162°W. long o Westernmost point (incl. Aleutians) ÷11

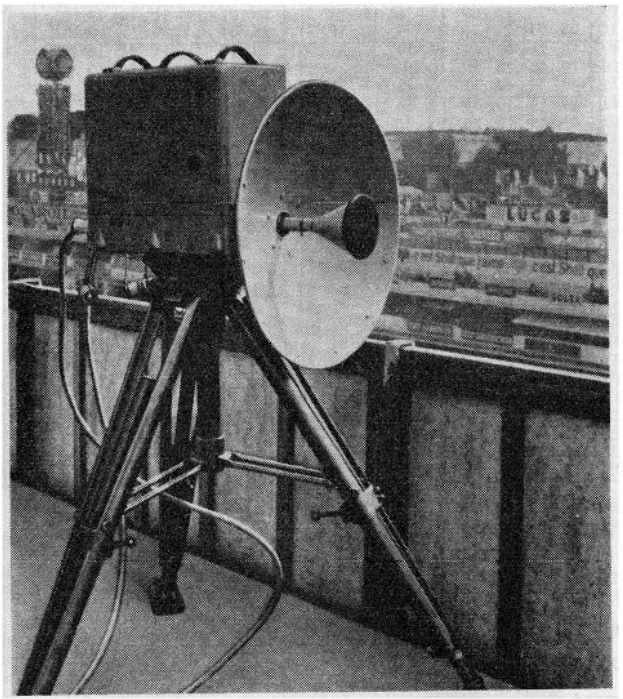
2) Generally ÷6
Lower Cal.
Pa. coast ÷7
No. part ÷8

Televisions of : FRANCE
ENGLAND
SPAIN
YUGOSLAVIA
PERU



have adopted the mobile reporting microwave relay

TV 11



- 625 line TV signals (CCIR standard) either in black & white or colour, with or without the associate sound
- 819 line TV (French standard) with or without associate sound
- Industrial TV signals
- Several simultaneous high quality music channels
- Radar signals
- Telemetering or remote control signal
- Up to 120 telephone communication channels

With a particular view to facilitate installation, provision is made for multiplexing on a single parabola either two transmitters or two receivers or a transmitter and receiver

Advantage in the choice of the 11000 Mc/s band
— Less encumbered frequency band
— Lightening of the material (both by reduction in weight & volume)

Possibility of use as a fixed station
Material built in separate units easily portable by one person
No special equipment needed for mounting

TRT

TÉLÉCOMMUNICATIONS RADIOÉLECTRIQUES ET TÉLÉPHONIQUES

Services commerciaux : 88, rue Brillat-Savarin **PARIS** 13e **POR**t-Royal **77.79**

TABLE OF THE MOST SUITABLE METRE BANDS, 1964

The table shows the bands that are likely to be best for short wave reception to and from every major area in the world at various times of the day from the period November, 1963 to October, 1964. The above figures should be used as a guide only. Where the band given is not suitable, use the one immediately above or below. To use the tables, first choose the area in which you are located, then for the time desired slide your finger across the line until you have located the area to which you want to listen, for the proper season. For example, a listener in the European area would best receive the 41 m.b. at 07 GMT from the M.E. during the period November 1963 to February 1964.

Prepared by George Jacobs, Chief Frequency Division, Voice of America.

THE LISTENER'S AREA	Local time	Approx. GMT Time	LOCATION OF TRANSMITTING STATION																							
			NOV. 1963–FEB. 1964								MAR./APR., SEPT./OCT. 1964								MAY–AUGUST 1964							
			Eu/No.Af.	ME.	N.Am.(E)	N.Am. (W)	So. Am.	C./So.Af.	So.As.	Ea.As.	Aus./NZ.	Eu/No.Af.	ME.	N.Am.(E)	N.Am.(W)	So.Am.	C.So.Af.	So.As.	Ea.As.	Aus./NZ.	Eu/No.Af.	ME.	N.Am.(E)	N.Am. (W)	So.Am.	C./So.Af.	So.As.	Ea.As.	Aus./NZ.
CENTRAL	07	06	49	41	49	49	49	41	19	31	49	41	25	49	49	49	31	16	25	25	41	31	49	49	31	25	19	19	19
AND	15	14	25	19	16	25	16	16	25	41	19	25	19	19	19	16	16	16	19	25	25	19	25	25	19	19	19	19	25
NO. EUROPE	21	20	49	41	31	25	31	19	41	49	49	31	31	25	25	25	31	31	31	49	31	31	19	25	16	25	31	31	31
EUROPE (WE.)	07	06	49	31	49	49	49	49	19	25	25	49	25	49	49	49	31	19	25	25	41	25	49	49	31	19	19	19	19
AND	15	14	19	16	16	19	16	13	16	31	19	19	19	19	19	16	13	16	19	19	25	19	19	25	19	13	16	19	25
NO. AFRICA	21	20	41	41	25	25	31	16	41	49	49	19	25	19	19	25	19	25	31	41	31	25	19	19	19	25	25	31	31
MIDDLE	07	05	41	41	49	49	49	19	19	16	13	31	41	49	31	49	25	16	16	16	25	31	49	25	25	25	19	19	16
EAST	15	13	16	19	16	49	16	13	25	31	19	19	25	19	49	16	16	13	19	31	19	25	19	31	16	13	13	19	31
	21	19	41	49	25	31	31	31	41	41	31	25	31	25	25	25	31	31	31	41	25	31	25	25	19	19	25	31	31
NO.	07	12	25	16	49	49	25	19	25	49	49	19	25	49	49	19	19	25	25	25	19	19	31	25	25	19	25	25	41
AMERICA	15	20	25	25	25	19	16	16	19	49	16	19	25	25	19	16	16	19	25	19	19	25	19	19	16	19	19	19	19
(EAST)	21	02	49	49	49	49	31	49	31	25	25	49	49	49	31	25	31	49	31	25	31	31	31	25	25	31	19	19	19
NO.	07	15	19	31	19	49	19	16	49	49	49	19	19	19	49	19	19	25	49	49	25	25	25	31	19	19	31	31	31
AMERICA	15	23	49	31	19	25	16	16	16	16	13	49	49	19	25	16	25	19	19	13	19	19	19	19	16	25	25	25	16
(WEST)	21	05	49	49	49	49	31	31	31	49	31	49	31	49	49	31	49	25	25	25	31	25	31	31	31	41	19	19	25
CENTRAL	07	13	19	25	31	31	19	19	19	31	25	19	19	19	31	19	19	19	31	31	31	19	25	31	25	19	19	25	41
AMERICA	15	21	49	49	16	16	19	19	19	19	19	19	31	16	16	16	19	25	19	19	19	19	19	19	19	19	19	19	25
	21	03	49	49	49	31	31	31	41	19	19	31	49	31	25	25	31	31	25	19	31	31	31	25	25	25	19	25	25
SOUTH	07	11	19	13	31	31	31	16	13	31	19	19	16	19	49	31	16	16	19	31	25	19	31	31	49	19	16	49	49
AMERICA	15	19	25	25	16	13	19	16	19	19	19	19	25	16	16	19	13	19	25	25	19	16	16	19	19	19	25	19	25
	21	01	49	31	31	19	25	25	49	16	19	31	49	25	16	31	25	25	19	19	25	31	25	25	31	25	31	25	49
CENTRAL	07	05	49	19	49	31	31	41	19	16	19	31	25	49	49	25	41	16	19	19	25	25	31	49	49	49	16	19	19
AND	15	13	16	13	16	25	19	19	13	41	19	13	16	19	19	16	16	13	19	25	16	13	19	25	19	19	13	19	49
SO. AFRICA	21	19	19	31	16	16	19	19	25	41	41	19	31	16	19	25	16	19	31	41	16	19	19	19	19	31	31	31	49
SOUTH	07	02	49	41	31	19	49	25	19	13	16	31	41	49	19	31	25	19	19	16	31	25	19	19	49	41	25	19	16
ASIA	15	10	13	13	49	49	16	13	19	25	16	16	16	49	49	25	16	16	16	31	19	16	25	31	16	16	19	16	25
	21	16	31	31	19	49	16	16	31	41	25	16	19	19	25	19	13	25	25	31	25	25	25	25	16	25	31	31	31
	07	23	49	41	19	16	16	41	31	31	19	41	31	19	19	25	41	31	25	16	31	25	19	19	19	31	31	25	16
EAST ASIA	15	07	25	16	49	49	25	16	13	16	13	25	19	49	49	31	16	16	19	19	19	19	49	25	31	19	16	16	19
	21	13	41	31	49	49	31	41	41	41	25	19	19	31	49	19	19	16	19	25	19	19	25	31	25	19	25	25	31
AUSTRALIA	07	21	49	31	16	16	19	31	31	41	25	41	49	19	13	16	41	49	41	31	31	31	19	19	25	49	41	41	31
AND	15	05	49	13	25	31	19	19	13	13	19	25	16	25	25	25	19	19	19	19	19	16	25	19	49	19	16	16	25
N. ZEALAND	21	11	19	16	49	49	19	19	19	19	25	19	25	49	31	31	19	31	25	31	31	25	49	31	49	41	31	31	41

DX-PROGRAMMES

All prgr's in English exc. where indicated.

AUSTRALIA: "R. Australia": "Australian DX'ers calling". Sat 22.00. Sun 07.15 (28/3–24/10), 09.00 (27/10–28/3), 13.00, 14.45, 18.45. Mo 02.15. Japanese: "DX-Time": Sun 10.45.

BULGARIA: "R. Sofia": English: Fri 19.30, 21.30, Sat 01.00, 04.00. German: 1st & 3rd Sun 20.00. French: 1st Sun 21.00.

CANADA: "Canadian Broadcasting Corporation": Sat 18.32, 20.45, 23.00, Sun 08.30. German: Sun 18.15. **French:** Sat 19.15.

CZECHOSLOVAKIA: "R. Praha": 1st Mo 19.00, 22.00 "Around the World". Swedish: Thurs 16.30, Fri 10.00 (repeat). German: Every first Thurs of month at 19.00. For Austria: Every third Sun of month at 11.00, repeated Mo 17.15, Tues 11.00.

DENMARK: "Voice of Denmark": Tues 19.20, 20.35, Wed 02.20, 03.50, Thurs 09.50, 15.20.

FINLAND: "Finnish Broadc. Co": 1st & 3rd Fri of month 16.00, 20.30 (Sept–May). 1st & 3rd Sat of month 11.30 (May–Sept).

ECUADOR: HCJB: "DX Party Line" 1st Tues 02.00 for No. Am.

GERMANY: "Deutsche Welle": 2nd Mo/Tues of month 08.00, 11.00, 14.05, 17.15, 18.30, 20.20, 23.45, 01.15, 03.00, 04.15 – **"R. Berlin International"**: Mo 17.00 (Swedish).

GR. BRITAIN: B.B.C.: "Shortwave Listeners Corner". Tues 10.15, Wed 00.30, Thurs 15.45, Sun 08.30 (Pacific Service).

HAITI: Radio 4VEH: "DX-Corner" Sat 12.15–12.30.

HOLLAND: "R. Nederland": "DX Juke Box" Thurs 07.12, 14.12, 19.42, 21.42, Fri 01.42.

HUNGARY: "R. Budapest": "Calling R. Amateurs" Tues 20.00 (Europe), Wed 00.00 (No. Am).

JAPAN: "R. Japan": "DX-News" every 4th Sat/Sun of month: 15.45, 17.55, 19.45, 00.15, 03.45, 06.00, 08.30, 10.10, 13.15, 15.15.

NEW ZEALAND: "This R. Age" 1st Wed 06.40, 10.30+following Sun 00.40.

PHILIPPINES: FEBC: "Shortwave Mailbag" Mo 09.15, Wed 13.30.

POLAND: "Polskie Radio": 2nd Fri 18.30 and following Mo 21.30, Thurs 17.30 in Swedish. Wed (fortnightly) 16.30 in Danish.

RUMANIA: "R. Bucharest": 2nd, 4th Fri of month 19.00, 22.30.

SWEDEN: "R. Sweden": "Sweden calling DX'ers": Tues 12.30, 14.00, 14.45, 16.15, 19.45, 22.00, 23.30, Wed 01.45, 03.15. as last part of English half h. Every Wed in German 19.15, 21.30, 23.00. Every Sat in French 17.45, 20.30, 21.45.

SWITZERLAND: "Swiss Shortwave Service": "Swiss Short-wave Merry-Go-Round": Sat (in all English transmissions): 07.30, 09.30, 13.15, 15.15, 17.15, 20.00, 02.00. "DX-Corner": Sat 12.14.

USA: "W.R.U.L.": Tues 15.40, Sun 19.40 – **"V.O.A."**: "Radio Amateurs' Notebook" Sun 07.30 (for Europe, Asia), 08.45 (for Austr. & N.Z, Asia), Sun 22.30 (for Europe), Mo 03.30 (for So. Am).

U.S.S.R.: R. Moscow": "DX Club" Sun 23.50, Mo 03.50 (for No. Am).

ESPERANTO

AUSTRIA: Österreischischer Rundfunk: Tues 16.50 (2nd Prgr).

BULGARIA: R. Sofia: Sun 19.00, 23.30.

CZECHOSLOVAKIA: Radio Praha: Last Thurs of month 17.45, last Fri of the month 10.00.

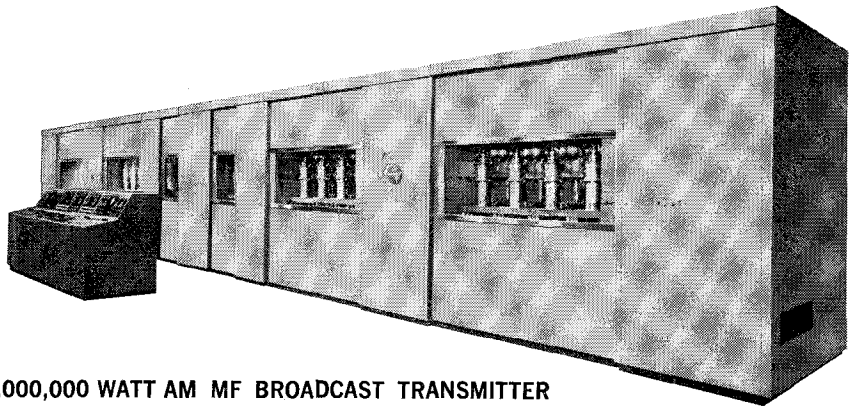
GUATEMALA: R. Nacional: Wed 23.00.

HOLLAND: First Mo of month 22.40 (Hilversum I or II): Every Fri 22.00 (Hilversum I or II).

ITALY: R. Roma: Tues, Wed, Fri 17.55.

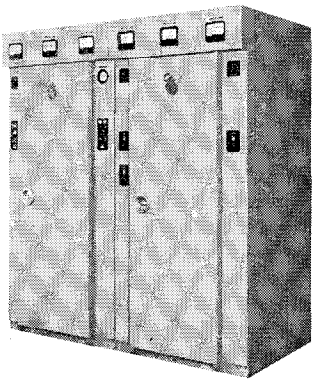
POLAND: Polskie Radio: D 15.30.

SWITZERLAND: Swiss Short Wave Service: Mo, Wed, 12.20; Thurs, Sat 21.15.

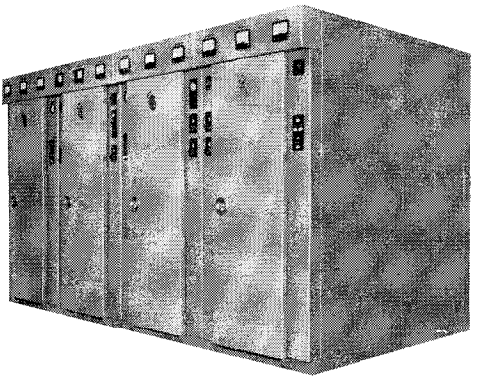


TYPE 323B 1,000,000 WATT AM MF BROADCAST TRANSMITTER

Designed for operation in the standard broadcast band, Continental's 1,000,000 watt transmitter consists of two Type 320B 500,000 watt transmitters which are combined to provide a power output of 1,000,000 watts. These were the first super power transmitters built for the Voice of America, and were installed at Munich, Okinawa and Manila in 1953.



TYPE 315B/316B 5,000/10,000 WATT AM MF BROADCAST TRANSMITTER



TYPE 317B 50,000 WATT AM MF BROADCAST TRANSMITTER

ACCESSORIES

- ☐ PHASING & COUPLING EQUIPMENT
- ☐ DUMMY LOADS
- ☐ MAGNIPHASE LINE PROTECTION SYSTEM
- ☐ TRANSMITTER REMOTE CONTROL
- ☐ MONITOR RECEIVER
- ☐ FAULT ALARM SYSTEM
- ☐ CLOSED CIRCUIT TELEVISION SYSTEMS
- ☐ VIDICON CAMERA CHAINS
- ☐ CCTV MONITORS, SWITCHERS AND ACCESSORIES
- ☐ AUTOMATIC PROGRAMMING AND LOGGING SYSTEMS
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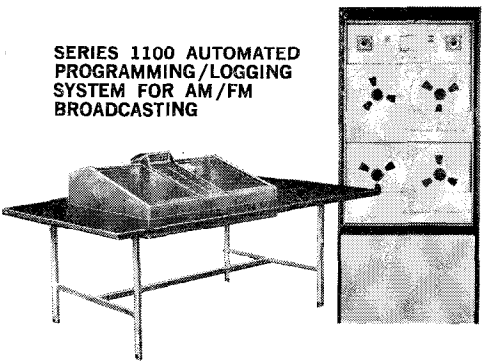
TYPE 20A-1 VIDICON CAMERA CHAIN

SERIES 1100 AUTOMATED PROGRAMMING/LOGGING SYSTEM FOR AM/FM BROADCASTING



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VOICES OF THE WORLD

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2. RADIO MOSCOW

3. RADIO NORWAY

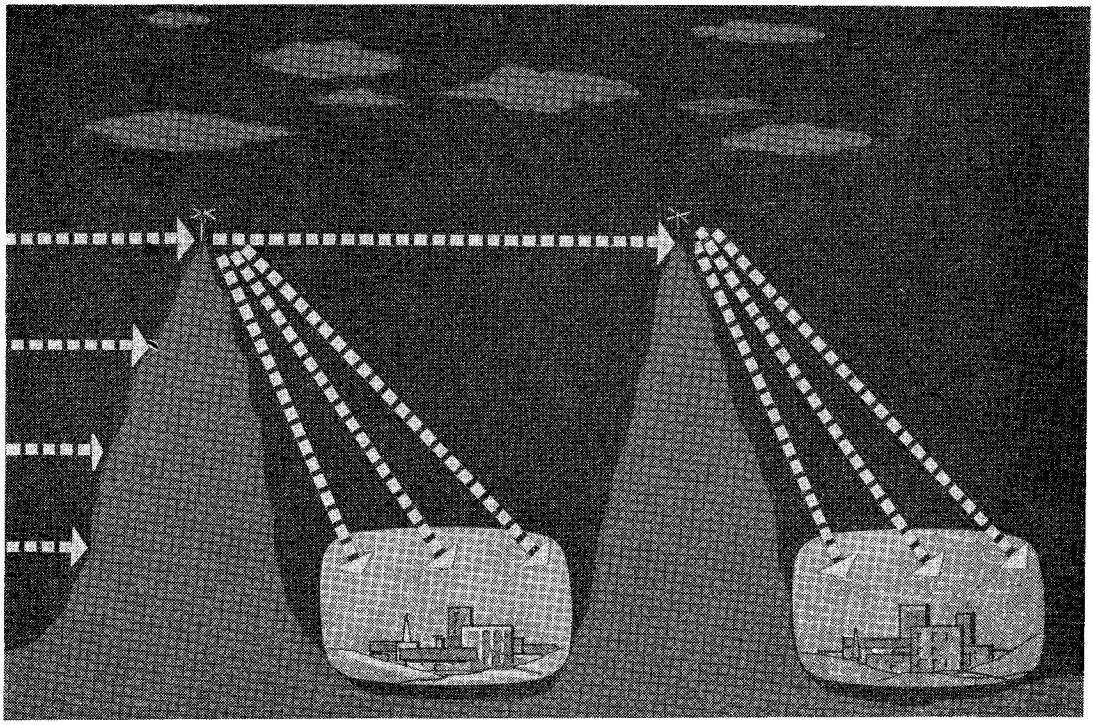
4. BBC

5. RADIO JAPAN

6. FINNISH BROADCASTING CORP.

7. TRANS WORLD RADIO, MONACO

1. **Station HCJB, Ecuador:** Miss Sonja Persson who takes care of all the programs to Scandinavia.
2. **Radio Moscow:** Staff of the No. American sce. From left: N. Sergeyev, Annette Setyayeva, J. Adamov, Annabelle Bucar, S. Rudin, Lucy Pravdina.
3. **Radio Norway:** The principal announcers. From left: F. Güberg, E. Thokle, Mrs Gundel Krauss Dahl, A. Aasgaard. They are all-round announcers in all Norwegian and English prgrs.
4. **B.B.C., England:** Miss Kay Sharman introduces "Forces Favourites", the record request programme heard in the BBC General Overseas Service. Miss Sharman is very popular with the BBC vast audience she presents many request prgr's.
   BBC, England: Miss Dorothy Logan, a regular announcer in the BBC's External Services, she is very popular with listeners to many request prgr's and also as narrator on the "Shortwave Listeners Corner".
5. **Radio Japan (N.H.K.):** Miss Kazuko Oida who is a popular announcer: "Tokyo Disc and Data".
6. **Finnish Broadcasting Corp.:** DX-Editor E. Gagneur (right) and announcer in the Foreign Service Miss Maj-Britt Öhrnberg.
7. **Trans World Radio, Monaco:** D. Carlson (right), D. Olson announce a prgr. in the English language block. English prgr's are beamed daily in the morning to listeners in the British Isles and on the continent of Europe.

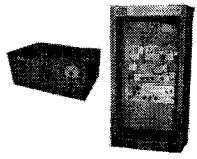


Difficult Terrain ... distance?

TRANSLATORS ARE THE BEST SOLUTION

to exend TV coverage or fill in problem areas!

EMCEE *offers the world's largest selection of models and the most complete engineering know-how!*



Experts agree that the one way to bring superior TV Reception to problem areas is through Translators. Experts also agree that EMCEE is the one world-wide leader with the widest selection of standard models. VHF and UHF, 1 watt to 100 watts. Automatic, unattended operation for extra broadcast coverage or relaying. Let EMCEE's complete engineering know how help you ... write to day!

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160 East 3rd Street
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- ☐ Reception is poor
- ☐ No reception at all

Our problems are
- ☐ distance
- ☐ mountainous area
- ☐ receive not enough channels
- ☐ Please send information for
- ☐ broadcasters ☐ for communities

Name

Street

City

Country

EUROPE
1:20 Mill.
KM
100 0 100 200 300 400 500
ICELAND
HÖFN
AKUREYRI
ICEBERG
KEFLAVIK
REYKJAVIK
EIDAR
TROMSÖ
FINNMARK
MURMANSK
ARKHANGELSK
KAUNISPÄÄ
SAMMALTUNTURI
White Sea
NARVIK
PYHÄTUNTURI
PELLO
TAIVALKOSKI
KIRUNA
ROVANIEMI
BODÖ
LULEA
OULU
KAJAANI
YLIVIESKA
KOLI
JOENSUU
FINLAND
PETROSAVODSK
KOKKOLA
KUOPIO
IVANOVO
UMEA
PIETARSAARI
SAVONLINNA
VAASA
MIKKELI
ÖRNSKÖLDSVIK
AHTÄRI
IMATRA
SOVIET
NAMSOS
ÖSTERSUND
KRISTIINA
LAHTI
LENINGRAD
TRONDELAG
SUNDSVALL
PORI
TAMPERE
HELSINKI
HUDIKSVALL
TURKU
MOSCOW
SWEDEN
TALLIN
VIGRA
NORWAY
FALUN
GÄVLE
TARTU
THORSHAVN
HAMAR
UPPSALA
OSLO
STOCKHOLM
VALMIERA
BERGEN
ÖREBRO
NORRKÖPING
MADONA
FREDRIKSTAD
KULDIGA
RIGA
SMOLENSK
PORSGRUNN
MOTALA
VISBY
UNION
STAVANGER
BORÅS
MOGHILEV
GÖTEBORG
KALMAR
KAUNAS
VILNIUS
KURSK
KRISTIANSSAND
HALMSTAD
MINSK
GOMEL
KARLSKRONA
North Atlantic Ocean
DENMARK
HÄLSINGBORG
HÖRBY
Baltic Sea
BURGHEAD
SCOTLAND
SKIVE
KALININGRAD
BARANOVITJI
CHARKOV
North Sea
DUNDEE
COPENHAGEN
MALMÖ
KIEV
REDMOSS
ESBJERG
KALUNDBORG
GDAŃSK
WESTERLEN
EDINBURGH
TÖNDER
TORUŃ
DNJEPROPETROVSK
GLASGOW
FLENSBURG
STAGSHAW
KIEL
SZCZECIN
WARSZAWA
BELFAST
NEWCASTLE
BREMERHAVEN
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LODZ
LISNAGARVEY
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HAMBURG
POZNAŃ
POLAND
VINNITSA
BREMEN
BERLIN
ATHLONE
EPENMONT
MOORSIDE
HOOGEZAND
WROCŁAW
LVOV
TJERNOVTSY
DUBLIN
GREAT BRITAIN
HOLLAND
DRESDEN
KATOWICE
KRAKÓW
KICHINEV
ODESSA
IRELAND
POSTWICK
HILVERSUM
LEIPZIG
TIRASPOL
DROITWICH
DAVENTRY
GERMANY
KOŠICE
IAŞI
CORK
SWANSEA
CARDIFF
LONDON
KÖLN
PRAHA
CZECHO-SLOVAKIA
CLEVEDON
BEXHILL
BRUXELLES
ČES BRNO
NYIREGYHAZA
WASHFORD
BUDEJOVICE
PLYMOUTH
BARTLEY
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CLUJ
BACAU
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RUMANIA
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AUSTRIA
HUNGARY
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LIMOGES
SARAJEVO
TITOGRAD
COMOTINI
CLERMONT FERRAND
LYON
MILANO
SKOLPJE
GRENOBLE
TORINO
GENOVA
BOLOGNA
DUBROVNIK
Bay of Biscay
FIRENZE
TIRANA
THESSALONIKI
SAN REMO
ANCONA
PESCARA
ALBANIA
KORCA
Aegean Sea
BORDEAUX
NIMES
ITALY
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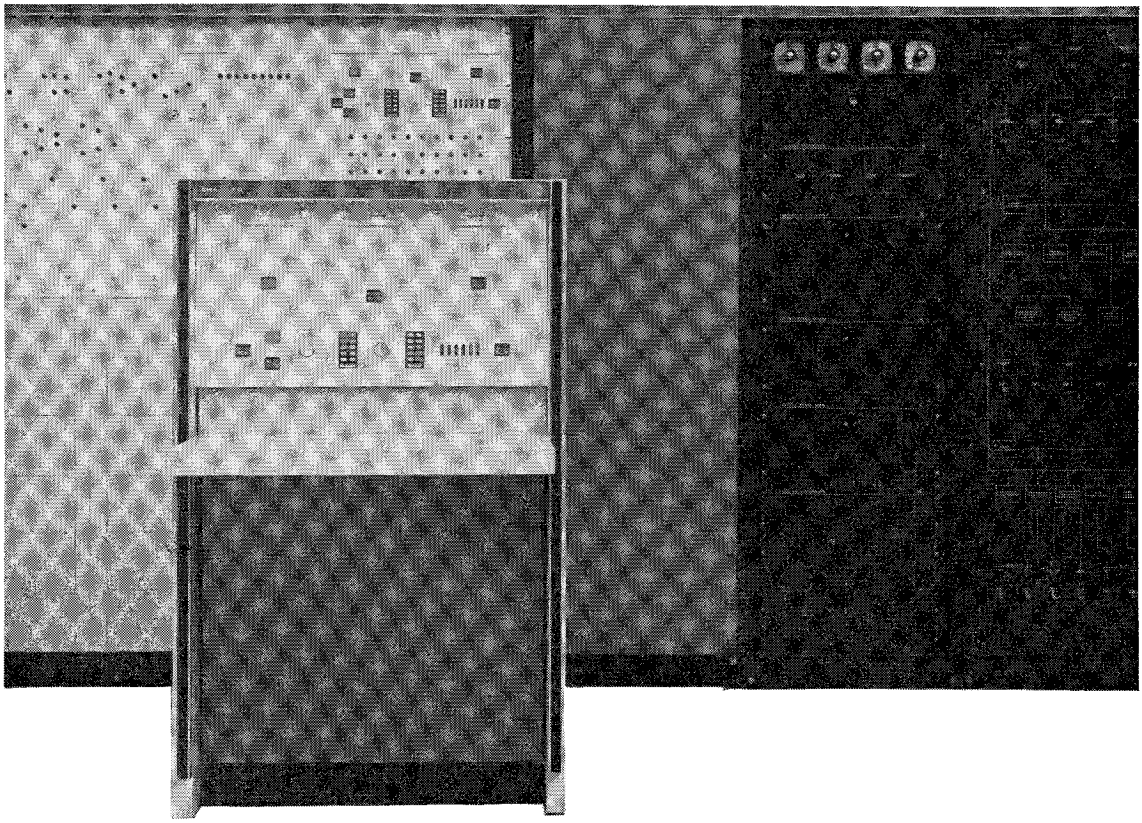
ROMA
FOGGIA
BARI
GREECE
PELLIER
Corsica
CORFU
PAU
PERPIGNAN
NAPOLI
ATHENS
LA CORUÑA
OVIEDO
BILBAO
SAN SEBASTIAN
ANDORRA
Ionian Sea
PATRAS
BURGOS
AMALIAS
PALENCIA
LERIDA
SASSARI
VALLADOLID
ZARAGOZA
BARCELONA
Sardinia
NUORO
CHANIA
PORTO
SALAMANCA
MENORCA
CAGLIARI
PALERMO
MESSINA
Creta
MIRAMAR
COIMBRA
MADRID
CUENCA
MALLORCA
CATANIA
CALTANISSETTA
PORTUGAL
SPAIN
Balearic Islands
Sicily
PAREDE
CACERES
VALENCIA
LISBOA
The Mediterranean
ALICANTE
Malta
HUELVA
BAZA
TUNIS
FARO
GRANADA
MICHELET
CONSTANTINE
ALGERIA
SEVILLA
MALAGA
ALGER
AFRICA
BENGHAZI
GIBRALTAR
TANGIER
ORAN
TRIPOLI
HAG 58



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it's Collins CHA-250
offering features never before available in high power transmitters.

20-second tuning — Change frequencies in the 3.95 to 26.5 MC range in less than 20 seconds. The operator simply pushes a button to retune and start up on another pre-set frequency.

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Retransmission pour télévision
Représentante et licenciataire italienne de
TELEFUNKEN G. M. B. H.
pour les articles radio professionnels

NUMBERS OF LISTENERS

In the whole world with a population of over 3 milliards, there are more than 500 millions listeners and about 150 millions viewers; only one listeners ore viewer is calculated for each receiving set.
For example: Africa about 20 receivers per 1000 inhabitants; USA 980, Canada 465, Sweden 375, West Europe 275, Japan 270, East Europe 120, India 10, and an average figure for the whole world, about 145.

Country	Po.	R. Rcvrs.	TV. Rcvrs.
Afghanistan	12.000.000	25.000	–
Albania	1.725.000	69.000	1.000
Algeria	12.000.000	1.000.000	60.000
Andorra	12.500	3.100	–
Angola	4.835.000	60.000	–
Argentina	21.260.000	5.500.000	1.200.000
Australia	10.604.000	2.242.327	1.584.016
Austria	7.074.000	2.087.600	412.600
Azores	350.000	25.000	–
Bahamas	135.000	32.000	–
Bahrain	150.000	20.500	–
Barbados	246.000	24.450[1]	–
Basutoland	1.000.000	5.000	–
Bechuanaland	338.000	3.000	–
Belgium	9.250.000	2.895.754	1.017.503
Bermuda	56.056	21.000	10.100
Bolivia	4.000.000	360.000	–
Borneo	460.000	23.283	–
Brazil	80.000.000	7.200.000	1.800.000
Brunei	86.090	7.000	–
Bulgaria	8.046.000	1.817.457	49.605
Burma	23.000.000	146.055	–
Burundi	2.500.000	55.000	–
Cambodia	5.500.000	150.000	1.000
Cameroon	4.500.000	105.000	–
Canada	19.000.000	9.200.000	4.600.000
Canary Islands	900.000	102.000	–
Cape Verde Isl.	201.149	2.754	–
C. African Rep.	1.200.000	20.000	–
Ceylon	10.644.809	374.568	–
Chile	8.000.000	1.250.000	25.000
Colombia	15.000.000	1.000.000	210.000
Comores Islands	180.000	3.500	–
Congo (Franco-African)	845.000	25.000	1.000
Congo Rep.	14.000.000	200.000	–
Costa Rica	1.300.000	100.000	18.000
Cuba	6.933.000	1.250.000	525.000
Cyprus	590.000	102.000	7.000
Czechoslovakia	14.010.000	3.692.933	1.531.000
Dahomey	2.300.000	25.000	–
Denmark	4.600.000	822.110	910.000
Dominican Rep.	3.098.000	110.000	19.200
Equador	4.555.000	500.000	6.000
El Salvador	2.810.078	358.000	25.000
Ethiopia	20.000.000	310.000	–
Faroe Isl.	36.500	8.500	–
Fiji Islands	427.851	26.443	–
Finland	4.560.000	1.378.000	410.575
France	46.520.271	10.258.175	4.150.406
Gabon	600.000	30.000	300
Germany, Fed. Rep.	57.668.100	16.954.996	8.107.631
Germany, Dem. Rep.	17.136.000	3.780.000	2.140.911
Ghana	6.700.000	360.000	–
Gibraltar	25.000	4.604	2.410
Great Britain	52.673.000	15.698.991	12.660.817
Greece	8.409.603	750.000	–
Greenland	34.312	4.640	–
Guadeloupe	277.000	6.375	–
Guatemala	3.868.000	50.000	50.000
Guiana, Br.	590.000	80.000	–
Guiana, Fr.	42.000	1.715	–
Guinea, Rep.	4.000.000	40.000	–
Guinea, P.	510.000	2.219	–
Guinea, Sp.	215.000	2.100	–
Haiti	4.233.000	55.000	4.800
Hawaii	660.300	470.000	160.000
Holland	11.900.000	3.072.700	1.500.000
Honduras, Br.	91.000	2.000	–
Honduras, Rep.	2.000.000	125.000	5.500
Hong Kong	3.526.000	142.546	16.500
Hungary	10.000.000	2.390.184	325.106
Iceland	183.478	50.563	–
India	440.000.000	2.600.000	700
Indonesia	96.000.000	550.000	10.000
Iran	21.500.000	1.500.000	100.000

Country	Po.	R. Rcvrs.	TV. Rcvrs.
Iraq	7.085.000	500.000	20.000
Ireland	2.814.703	700.000	200.000
Israel	2.250.000	498.750	–
Italy	51.500.000	9.036.836	3.457.262
Ivory Coast	3.340.000	25.000	500
Jamaica	1.661.500	197.000	7.500
Japan	95.390.000	18.500.000	5.000.000
Jordan	1.691.123	190.000	200
Kenya	8.676.000	450.000*	6.800
Korea Rep.	25.900.000	1.480.027	32.247
Kuwait	321.621	170.000	40.000
Laos	4.000.000	50.000	–
Lebanon	1.822.000	250.000	70.000
Liberia	2.000.000	100.000	–
Libya	1.500.000	40.000	–
Luxembourg	314.889	105.442	15.885
Malagasy Rep.	5.600.000	200.000	–
Malaya	8.000.000	326.009	–
Mali	4.500.000	40.000	–
Malta	329.285	50.000	24.000
Marianas Isl.	70.000	25.000	14.000
Martinique	312.000	16.500	–
Mauritania	1.000.000	30.000	–
Mauritius	696.709	54.923	–
Mexico	36.900.000	4.700.000	1.000.000
Monaco	20.422	6.200	12.500
Morocco	13.000.000	615.000	15.000
Mozambique	6.592.994	100.000	–
Nepal	8.500.000	30.000	–
Netherl. Ant.	193.000	102.000	14.000
New Caledonia	80.000	11.300	–
New Zealand	2.533.419	614.223	103.864
Nicaragua	1.600.000	88.000	8.000
Niger	3.000.000	10.000	–
Nigeria	40.000.000	400.000	10.000
Norway	3.600.000	1.045.300	257.089
Pakistan	93.812.100	396.800	–
Panama	1.200.000	80.000	30.000
Paraguay	1.812.000	110.000	–
P. R. of China	650.000.000	8.000.000	–
Peru	11.000.000	2.000.000	150.000
Philippines	28.727.000	1.220.000	70.000
Poland	30.592.100	4.324.705	1.111.825
Portugal	9.146.000	1.350.000	104.988
Puerto Rico	2.349.000	1.420.000	350.000
Reunion	360.000	25.000	–
Rhodesia & Nyasaland	10.989.100	68.000	41.900
Rumania	18.567.000	2.300.000	110.000
Ryukyu Isl.	900.000	245.000	62.635
Samoa	143.000	12.500	–
Sarawak	781.000	50.000	–
Saudi Arabia	6.500.000	30.000	16.000
Senegal	2.877.000	150.000	–
Sierra Leone	3.000.000	80.000	350
Singapore	1.715.000	200.000	3.000
Somaliland, Fr	80.000	3.000	–
Somali	2.160.000	26.000	–
So. Africa	16.000.000	1.500.000	–
Spain	31.000.000	4.500.000	1.000.000
Sudan	12.109.000	221.000	–
Surinam	300.000	30.000	–
Sweden	7.581.237	2.938.139	1.709.801
Switzerland	5.500.000	1.571.451	337.142
Syria	5.000.000	250.000	50.000
Tahiti	80.000	20.000	–
Taiwan	11.696.491	1.010.197	18.000
Tanganyika	9.500.000	100.000	–
Thailand	30.000.000	1.600.000	140.000
Timor	517.000	1.100	–
Trinidad	828.000	150.000	12.000
Togo	1.500.000	15.000	–
Tunisia	4.100.000	300.000	–
Turkey	28.602.000	1.633.141	1.000
Uganda	6.750.000	100.000	–
United Arab Rep. (Egypt)	27.000.000	2.000.000	150.000
United States	187.293.000	188.531.000	58.175.000
Upper Volta	4.000.000	45.000	150
Uruguay	2.870.000	900.000	160.000
USSR	218.000.000	60.000.000	7.000.000
Venezuela	7.525.000	750.000	410.000
Vietnam Rep.	14.000.000	120.000	–
Windward Isl.	323.133	15.000	–
Yugoslavia	18.538.150	2.178.699	148.774
Zanzibar	299.111	4.314	–

*=Estimated (Licensed 62.537 per $^1/_{10}$ 63) – ^{1}=Rediff. sets.

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Receiving Tubes

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ABBREVIATIONS:

Addr. = Address
AD = Advertising
Adm. = Administration
Adv. = Advertisement
Ag. = Acting
Amat. = Amateurs
A.M. = Amplitude modulation
Ann. = Announcement
Ant. = Antenna
Approx. = Approximately
Apr. = April
Apt. = Apartado
Assoc. = Associate(ion)
Asst. = Assistant
Aug. = August
Av. = Avenue, Avenida
B.P. = Boite Postale
Br. = British
Broadc. = Broadcast(ing),
C = Central
Ca. = Calle
Cas. = Casilla
Ch. = Channel
Chmn. — Chairman
Ci. = Ciudad
Co. = Company
Comm. = Commercial
Contr. = Controller
Corp. = Corporation
C.P. = Caixa Postal
c/s = Cycles per second
D = Daily
d. = Directional aerial
Dec. = December
Def. = Definition
Dem. = Democratic
Dept. = Department
Dep. = Deputy
Dir. = Director
Dir. Gen. = Director General
Div. = Division
DX = Long distance
E. = English
Ea. = East
E. by R. = English by Radio
Ed. = Edificio
Educ. = Education, educational
Emis. = Emissora
Equip. = Equipment
Eng = Engineer, Engineering
ERP = Effective radiated power
exc. = Except
Exec. = Executive
exp. = Experimental
Feb. = February
Fed. = Federal
F.I. = Financing
Fi. = Finnish
Fl. = Flemish
F.M. = Frequency modulation
F.PL. = Future plans
For. Rel = Foreign Relations
Fri = Friday
Freq. = Frequency
G. = German
Gen. Mgr = General Manager
G.M.T. = Greenwich Mean Time
Go. = Government
Gr. = Greek
h = Hour
H = Horizontal polarisation
Hqs. = Headquarters
I = Italian
incl. = including
Inf. = Information
Int. = International
Int. Sig. = Interval Signal
Isl. = Islands
Jan. = January
kc = Kilocycles
kW = Kilowatt
L.P. = Leading Personality
L = Language
L.N. = Local News
L.L. = Language Lessons
L.T. = Local Time
Man. = Managing
ME = Middle East (Near East)
Mgr. = Manager
Miss. = Missionary
Mo = Monday
m.b. = Meter band
Mbg. = Mailbag
MW. = Medium Wave
N. = News
Nac. = Nacional
Nat. = National
Net. = Network
nd = non directional antenna
N.E. = Near East
No. = North
Nov. = November
OBV = Outside broadcast vehicles
occ. = Occasionally
Oct. = October
Org. = Organization
Pa. = Pacific
P. = Portuguese
Po. = Population
Pol. = Polarisation
P.R. = Peoples Republic
Pr. = Province
Prod. = Production
Pri. = Private
PrL. = Principal Languages
Pres. = President
Prgr. = Programme
Pub. = Publication
R = Radio
Rcvrs. = Receivers
Re. = Report
Rec. = Records
Red. = Rediffusion
Rdif. = Radiodiffusion
Reg. = Regional
Rel. = Relay(ing), Relations
Rlg. = Religious
Rep. = Republic
Rf. = Rundfunk
Rp. = Return postage required
Rus. = Russian
Sat = Saturday
Sce. = Service
sched. = Schedule
Secr. = Secretary
Sep. = September
So. = South
Soc. = Sociedad(e)
So. We. = South West
Sp. = Spanish
SSR = Sovjet Socialist Rep.
St. = Station
Str. = Street
Su. = Summer
Sun = Sunday
Superv. = Supervisor
SW. = Shortwave
Te. = Telephone
Terr. = Territory
Thurs = Thursday
Tr. = Transmitter
Trop. = Tropical
Tues = Tuesday
T.V. = Television
Univ. = University
V = Vertical polarisation
V. = Verification
W = Weekdays
We. = West
Wed = Wednesday
Wi. = Winter
Wrp. = Weather report

Abbreviations of broadcasting organizations, countries and advertisers. ABC = Australian Broadc. Comm – AFN = American Forces Network AFRTS = Armed Forces Radio and Television Sce – AIR = All India Radio – BBC = British Broadc. Corp – BBCFES = BBC For Eastern Station – BFN = British Forces Network – BR = Bayrischer Rundfunk BRT = Radiodiffusion Television Belge – CBC = Canadian Broadc. Corp – COPE = Cadena de Ondas Populores Espanola – DW = Deutsche Welle – FBS = Forces Broadc. Service – FCC = Federal Communications Commission – FEBC = Far East Broadc. Company – ITA = Independent Television Authority – NDR = Norddeutscher Rundfunk N.H.K. = Nippon Hoso Kyokai – NZBS = New Zealand Broadc. Sce. – OCORA = Office de Cooperation Radiophonique – RAE = Radiodifusion Argentina al Exterior – RAI = Radiotelevisione Italiana – RBI = R. Berlin International – RCA = Radio Corporation of America REM = Red de Emisores del Movimiento – RFE = Radio Free Europe RIAS = Rundfunk in Am. Sector – RNE = Radio Nacional de Espana RRI = Radio Republic Indonesia – RTB = Radiodiffusion Television Belge – RTF = Radiodiffusion Television Francaise – SABC = So. African Broadc. Corp – SBC = Swiss Broadc. Co – SDR = Süddeutscher Rundfunk – SER = Sociedad Espanola de Rdif – SR = Saarländischer Rundfunk – SSS = Swiss Shortwave Service – SWF = Südwestfunk – VOA = Voice of America – WDR = Westdeutscher Rundfunk – WRUL = R. New York Worldside – U = United Nations.

Af = Africa – Am = America – Au = Australia – As = Asia – Br. G. = British Guiana – Co = Congo – Czech = Czechoslovak Socialist Rep – Eu = Europe – F.E. = Far East – Fr = French, France – GB = Great Britain – G.D.R. = German Democratic Republic – Isl = Islands – N.Z. = New Zealand – Sp = Spain – UAR = United Arabic Republic – UK = United Kingdom of Gt. Britain – USA = United States of America – USSR = Union of the Soviet Socialist Republics.

Abbreviations of Advertisers: AKG = Akustische und Kino-Geräte G.m.b.H., Vienna – CFTH = Compagnie Française Thomson Houston, Paris – CFS = Compagnie Generale de Telegraphie Sans Fil, Paris – NEC = Nippon Electric Company, Tokyo – TRT = Télécommunications Radioélectriques et Téléphoniques, Paris.

NEWS FROM AROUND THE WORLD

Publication date medio December 63.

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VOICES AND PICTURES OF THE WORLD

1. **R. Voice of the Gospel,** Ethiopia: View of the transmitter outside Addis Ababa, Photo Lagois, Nürnberg.
2. **Deutsche Welle:** DX-Editor. Gustav G. Thiele.
3. **Deutsche Welle:** Frank Barufski and Wolfgang Woytt in the prgr: "Was unsere Hörer wünschen".
4. **Deutsche Welle:** Dr. Rudolf Böhringer: "Lernt Deutsch bei der Deutschen Welle".
5. **Nippon Hoso Kyokai,** Japan: Announcers from left in the front row: B. P. Shilov (Russian), H. Niino (English), K. Kubo (English, in charge of "Listeners Corner", "Folk Song Folio" and other English prgr's) – In the back row: P. Pane (Indonesian, F. Greil (German).
6. **Nigeria Broadc. Corp,** Lagos: An announcer.
7. **St. ELWA, Liberia:** Children all over Liberia (and other parts of We. Africa) enjoy the Bible Stories by Aunt Clara. She conducts frequent Kiddies Korners Broadcasts from ELWA Radio Village.
8. **R. Ghana:** John Hammond ("Listeners Choice") and Augustina Akwei (News) going through the day's announcements.
9. **R. Iran:** Women in national cloths.
10. **R. New York Worldwide (WRUL):** The Spanish staff announcers. From left in front row: A. Carvallo, L. Uncal; bach row: T. Arriagada, M. Rosenberg, J. Vergara.
11. **R. Iran:** A reportage. A girl (student) from the Teheran University is interviewed.
12. **R. New York Worldwide (WRUL):** The English staff announcers. From left: John Lowry, M. Edell, Mel Bernam, C. Lowe.

1

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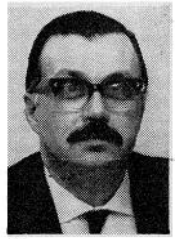
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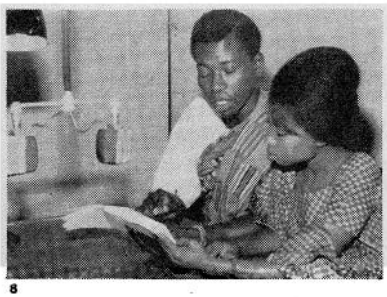
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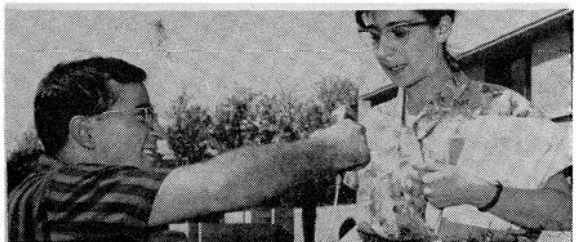
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12

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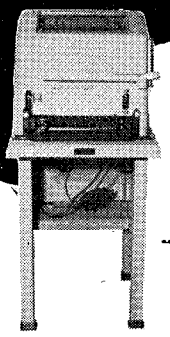

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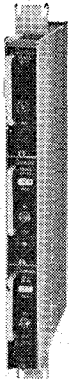

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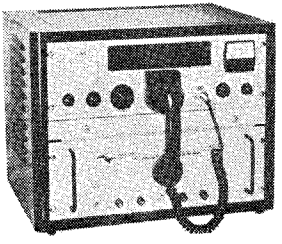

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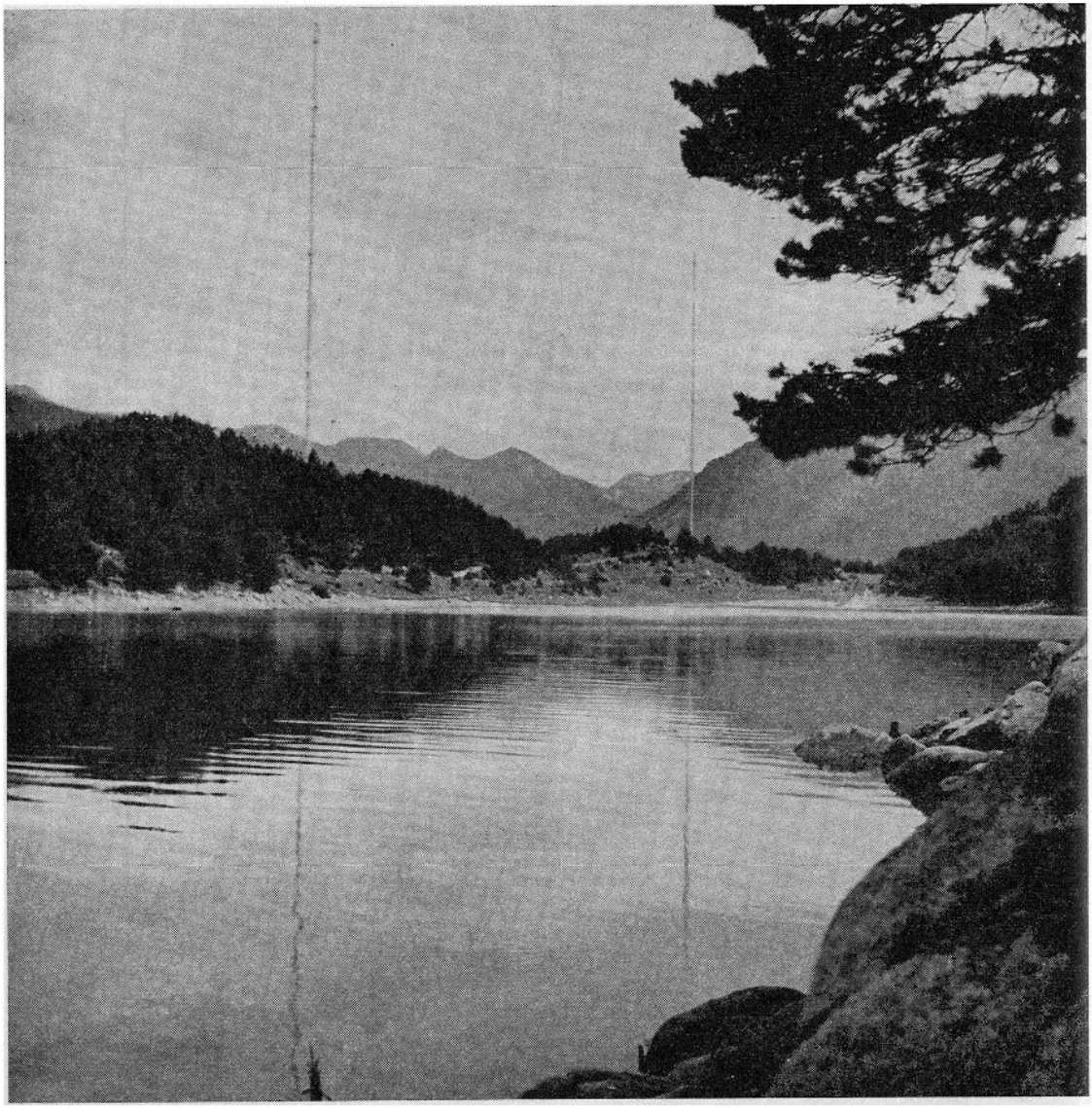

(PHOTO PEIG, ANDORRE)

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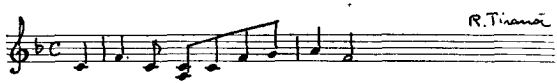
Tirana 1088 kc 257.7 m 50 kW – Korça 1349 kc 222 m 0.2 kW
Tirana 1358 – 221.0 – 1 –
D.Prgr: on 1088, 1358kc: W 05.00–07.00, 11.00–22.00. Sun 05.00–10.00, 11.00–22.00. N: 05.30, 06.30, 11.30, 13.00, 14.00, 17.00, 18.00, 19.00, 21.00 – Wrp: 20.15.
FOREIGN SERVICE
1088kc 257.5m – 7090kc 42.31m 50kW – 9715kc 3088m 20kW.
D.Prgr's: 04.00–07.00, 16.00–19.00 on 1088, 7090kc; 19.00–22.30 on 1088, 7090, 9715kc – Arabic: 04.00, 06.30, 19.30 – Bulgarian: 05.00, 17.00 – English: 20.00, 21.30 – French: 17.30, 20.30 – Greek: 04.30, 18.00 – Italian: 06.00, 21.00, 22.00 – Russian: 16.30, 19.00 – Serbo-Croat: 05.30, 16.00, 18.30 – Each prgr. 30 min.
ANN: Albanian: "Ju flet Tirana". Arabic: "Huna Tirana". Bulgarian: "Goveri Tirana". E: "This is R. Tirana calling". F: "Ici R. Tirana". Greek: "Milun Ta Tirana". I: "Parla Tirana". Russian: "Govorit Tirana". Serbo-Croat: "Govori Tirana" – INT-SIG: 9 notes played on clarinet – V. by letter.



RADIO KUKËSI (Go.) – ADDR: (Republika Popullore e Shqipërisë), Drejtoria e R. Difuzionit, Kukës – HOME SCE: Kukës 6660kc 45.04m (varies up to 150kc in freq.) 0.2kW – D.Prgr: 12.00–14.00, 17.30–20.00 – ANN: "Ju flet Kukësi" – V. by letter. Re. in French.

RADIO SHKODRA (Go.) – ADDR: Drejtoria e R. Shkodrës, Shkodër – L.P: Dir: Alush Geno – STATION: Shkodër 8215kc, 36.52m 0.2kW – HOME SCE: D 13.00–14.30, 16.30–20.00.
ANN: "Ju flet Shkodra" or "R. Shkodra" – V. by letter. Re. in German.

ANDORRA

L.T: GMT+1 h – Pr.L: French, Spanish, Catalan.

RADIO ANDORRA (Priv, Comm.)
ADDR: Roc des Anelletes, Andorre la Vieille, Principauté d'Andorre. Cable: "Randorra". Te: 100.
L.P: Dir. Gen: G. Dahlquist. Dir. Tec: J. L. Marquet. Dir. Prgr: G. Marquet. French Dept: J. Bonis. Spanish Dept: F. Torres. Pub. Dept: M. Rodriguez. Listeners Sce: C. Ruiz.
STATIONS: 998kc 300.6m 140kW – 5995kc 50.04m 25kW.
Brown Boveri, Switzerland, delivered 250kW mw-tr.
HOME SCE: 05.45–23.00 on 998kc – French: D: 05.45–13.00, 15.00–21.00 – Spanish: D: 13.00–15.00, 21.00–23.00.
ANN: F: "Ici R. Andorre" – Sp: "Aqui R. Andorra, emisora del principado de Andorra, Roc de las Anelletas, Andorra la Vieja, Principado de Andorra".
INTERNATIONAL SCE: L.P: Dir. Gen: G. Dahlquist. Dir. Tec: P. Cousse. Dir. Prgr: M. Brard. French Dept: J. Tellez. Foreign Dept: W. Danjon. Pub. Dept: M. Rodriguez. Listeners Sce: A. Dolade – D.PRGR: 11.00–13.00, 16.00–23.00 in English, French, German, Spanish on 5995kc.
ANN: F: "Ici R. Andorre International" – E: "This is R. Andorra International" – Sp: "Aqui R. Andorra Internacional emisora del Principado de Andorra" – G: "Hier ist R. Andorra".
INT-SIG: Gong low. Open and close down: "Hymne national Andorran" and "Marche des Conseillers Andorrans" – V. by QSL-card or letter. Rp. Records accepted – F.PL: mw 400kW in 1964 – PUB: Prgr.schedule (weekly), illustrated sheet "Aqui Radio Andorra" monthly.

RADIO DES VALLEES-ANDORRE I (Comm.)
ADDR: P.O. Box 7, Andorra-la-Vieille. Cable: Radioval. Te: 7.
L.P: Pres. & Adm: H. Dolbois. Adm. Council: H. Dolbois. J. Cruchon, A. Farrero, J. Chevance, G. Gaudy. R. Touzery. Dir: C. Delepine. Dir. Tec: R. Yves, P. Reymond.
STATIONS: 818kc 366.8m 300kW – 6305kc 47.58m 1kW.
FM: 98.9Mc 0.05kW.
Telefunken A.G, Germany, delivered studio equip. (recorders).
HOME SCE: French: 05.45–13.00, 15.00–21.00, 21.05–23.30. N: 06.30 and every h until 22.30 with main bulletins "Horizons du Monde" at 07.30, 12.30, 19.30 – Spanish/French: 13.15–15.00 – Catalan: 13.00–13.15, 21.00–21.05.
INTERNATIONAL PRGR: Sat 23.00–24.00. "Si tous les gars du Monde voulaient se donner la main".
ANN: F: "R. des Vallees – Andorre I". Catalan: "R. de les Valls – Andorra I". Sp: "R. de los Valles – Andorra I" – INT-SIG: Xylophone. V. by QSL-card and letter. Rp – PUB: Prgr. schedule (weekly), Journal (every 2 months).

AUSTRIA

L.T: GMT+1 h – Pr.L: German.

ÖSTERREICHISCHER RUNDFUNK (Gesellschaft m.b.H.)
FI: by license payments and adv – AD: Prgr. I: 70 min. per day; Prgr. II: 15 min. per day; Prgr. III: 8 h 53 min. per day.
ADDR: Österreichischer Rundfunk, Wien IV, Argentinierstr. 30a. Cable: Rundfunk Wien. Te: 656661 – L.P: Dir. Gen, Adm: J. Scheidl. Vice Dir. Gen, Dir. Tec: Dipl. Ing. W. Füchsl. Dir. Prgr: Prof. Dr. A. Übelhör. Dir. TV: G. Freund.
STUDIOS: R. Graz, Zusertalgasse 14a, Graz III. Cable: Radio Graz. P. Goritschnig – R. Klagenfurt: Sponheimerstr. 13, Klagenfurt. Cable: Radio Klagenfurt. P. Goritschnig – R. Linz: Obere Donaulände 1, Linz. Cable: Radio Linz. A. Schwetz – R. Salzburg: Franziskanergasse 5, Salzburg. Cable: Radio Salzburg. Dr. P. Becker – R. Tirol: Landhaus Neubau, Innsbruck. Cable: Radio Tirol. Dr. J. Scheidle – R. Voralberg: Neues Rathaus, Dornbirn. Cable: Radio Voralberg. Dr. W. Tölzer – R. Wien: Argentinierstr. 30a, Wien IV. Cable: Radio Wien. Dr. E. Glaser, H. Hasslinger.

HOME SERVICE

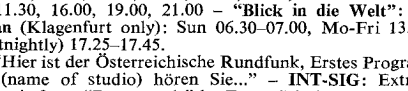
FIRST PRGR: W 04.30–21.05, Sun 05.00–21.15.

Medium W:	kc	m	kW		kc	m	kW
Aldrans I	629	476.9	25	Salzburg I	773	388	1
Lauterach I	629	476.9	25	Linz	890	337.1	15
Lienz I	629	476.9	1	Graz	1394	215.2	25
Klagenfurt I	728	412.1	25	Wien I	1475	203.4	150

Low Power M.W. (0.05kW, exc. where indicated):
566kc: Bad Ischl, Feistritz 0.1), Greifenburg, Maria Pfarr, Mühlbach, Radstadt, Eisenkappel, Neukirchen – 674kc: Aigen, Bischofshofen, Bleiburg, Gloggnitz, Neumarkt, Matrei, Ried, Radenthein – 773kc: Bad St. Leonhard, Hergamor, Lend, Mariazell, Oberdrauburg St. Michael/Lungau – 1052kc: Krems, Neunkirchen – 1124kc: Bruck/Mur (0.1) Eisenerz, Hofgastein, Imst, Judenburg (0.1) Kufstein* (0.015), Mayrhofen, Tamsweg, Gmünd*, Kötschach (0.1), Mürzzuschlag (0.1), Villach (0.1), Obervellach – 1142kc: Rottenmann – 1313kc: Kindberg. Ehrwald, Friesach, Haslach, Knittelfeld (0.1), Liezen, Völkermarkt, Wolfsberg, Murau, Ötz, Trieben – 1394kc: Admont, Bludenz, Spittal/Drau (0.2), Zell/See (0.2) – 1457kc: Amstetten, Schruns, Wr. Neustadt – 1484kc: St. Pölten (0.2) – 1493kc: Kitzbühel, Landeck, Mittersill, Reutte, Saalfelden, Schwarzach, Windischgarsten, Wörgl – 1546kc: Abtenau, Bad Aussee, Leoben (0.1), Sillian – 1594kc: Braunau, Feldkirchen, Zwettl – * operated by postal adm.

FM:	ch	Mc	kW		ch	Mc	kW
Jauerling I	15	91.4	50	H. Keibling I	24	94.3	4
Hahnbaum I	16	91.8	0.1	Gaisberg I	26	94.8	50
Patscherkofel I	18	92.5	50	Lichtenberg I	27	95.2	50
Stubnerkogel I	17	92.1	0.1	Schöckl I	28	95.4	50
Schmittenhöhe I	18	92.4	0.01	Kahlenberg I	36	97.9	50
Pyramidenkogel I	36	97.8	10	Kaunertal	36	97.9	0.04
Pfänder I	21	93.3	50	Sonnwendst. I	29	95.8	2.5
				Mugl I	39	98.7	20

N: W 04.45, 05.45, 06.45, 11.30, 16.00, 19.00, 21.00. Sun 05.45, 07.00, 08.00, 11.30, 16.00, 19.00, 21.00 – "Blick in die Welt": D 21.10.
Slovenian (Klagenfurt only): Sun 06.30–07.00, Mo-Fri 13.15–14.00, Sat (fortnightly) 17.25–17.45.
ANN: "Hier ist der Österreichische Rundfunk, Erstes Programm, von Radio...(name of studio) hören Sie..." – INT-SIG: Extract from ballet-music from "Rosamunde" by Franz Schubert.



SECOND PRGR: W 04.30–23.05. Sun 05.00–23.05.

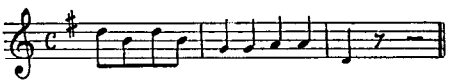
Medium Waves:	kc	m	kW		kc	m	kW
Aldrans II	520	576.9	10	Dobl	1025	292.7	100
Lienz II	520	576.9	10	Kronstorf	1025	292.7	100
Klagenfurt II	584	513.7	25	Lauterach II	1025	292.7	10
Salzburg II	584	513.7	10	Mariapfarr II	1025	292.7	5
Wien II	584	513.7	150				

AKG, Austria, delivered 100kW sw-tr. (Moosbrunn) studio eqiup. (recorders, microphones) to Vienna, Salzburg.
Kathrein Antennen, Germany, delivered FM-antennes.
Telefunken AG, Germany, delivered 3×10kW FM tr's.

Brown Boveri, Switzerland, delivered mw-tr's: Bisamberg 2×240 kW, Klagenfurt 2×25 kW, Graz 25 kW, Innsbruck 25 kW, Dornbirn 25 kW, Vienna 25 kW, Salzburg 1 kW.
Low Power M.W. (0.05kW): **520kc:** Bludenz 2, Murau 2 – **584kc:** Mayrhofen 2 – **962kc:** Ehrwald – **1025kc:** Hergamor 2, Ötz 1, Kitzbühel 2 – **1142kc:** Bad Aussee 2, Landeck 2, Reutte 2, Saalfelden 2, Abtenau.

FM:	ch	Mc	kW		ch	Mc	kW
Mugl II	2	87.6	20	Stubnerkogel II	31	96.3	0.1
Schöckl II	7	89.2	1.2	Patscherkofel II	31	96.4	15
Pfänder II	9	89.7	2	Jauerling II	33	97.0	15
Gaisberg II	13	90.8	5	Hahnbaum II	34	97.2	0.1
Kahlenberg II	16	91.9	1.2	Lichtenberg II	35	97.5	1.2
H. Kaibling II	31	96.3	4				

N, Wrp: W 05.00, 06.00, 07.00, 12.00, 16.00, 18.00, 21.00, 22.00, 23.00. Sun 05.00, 06.00, 07.00, 09.00, 12.00, 16.00, 18.00, 21.00, 23.00.
"Eine Woche Weltgeschehen": Sun 18.10 – **Quiz Prgr:** Sat 19.00 – **L.L: English:** Fri 20.40–20.55. **Esperanto:** Tues 16.50.
ANN: "Hier ist der Österreichische Rundfunk, Zweites Programm, von Radio... (name of studio) hören Sie..." – **INT-SIG:** Extract from Opera "Die Zauberflöte" by W. A. Mozart.



THIRD PRGR: relay 2nd Prgr.

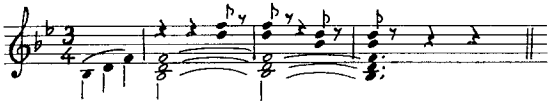
FM:	ch	Mc	kW		ch	Mc	kW
Hahnbaum III	4	88.2	0.1	Schöckl III	14	91.2	50
Sonnwendstein II*	4	88.2	2.5	PyramidenkogelIII	19	92.8	10
Patscherkofel II	5	88.5	50	Pfänder III	37	98.2	50
Stubnerkogel III	5	88.5	0.1	Gaisberg III	40	99.0	50
H. Kaibling III	5	88.5	4	Jauerling III	40	98.9	50
Schmittenhöhe II	6	88.8	0.01	Lichtenberg III	41	99.4	50
Mugl III	9	89.7	20	Kahlenberg III*	43	99.9	50

* testprgr. 14.00–16.00.
PUB: "Radio Österreich", weekly prgr. sched. Four times a year: "Aus dem Programm" – free on request.
SHORTWAVES: Test Prgr's. **Stations:** 1/50kW. **Call:** OEI–––.

Call	kc	m	Call	kc	m	Call	kc	m	Call	kc	m
20	6000	50.00	402	9545	31.43	604	15320	19.58	713	17745	16.91
21	6155	48.74	47	9770	30.71	602	15325	19.58	72	17765	16.89
39	7245	41.41	55	11785	25.46	66	15410	19.47			
49	9525	31.50	69	15240	19.69	709	17735	16.92			

To Europe:	kc	To Near East:	kc	To So. Africa	kc
04.30–24.00	6000	06.00–09.00	15410	15.00–17.00[2]	**17765**
05.00–09.00	**6155**	11.00–14.00	15240	17.00–19.00[2]	**15325**
09.00–17.00	6155	17.00–20.00[1]	9545	**To India/Indonesia**	
17.00–21.00	**6155**	**To No. America, Ea.**		09.00–11.00[2]	**17735**
21.00–22.00	6155	22.00–23.00[1]	6155	13.00–15.00[2]	**17735**
06.00–09.00	7245	23.00–04.30	6155	**To Australia/N.Z.**	
09.00–13.00	**7245**	00.00–01.00	**9770**	11.00–13.00[2]	**17745**
13.00–20.00	7245	01.00–04.00	9770	**To Japan**	
09.00–13.00	9770	**To So. America**		05.00–07.00[2]	**11785**
13.00–17.00	**9770**	19.00–21.00[2]	**11785**	07.00–09.00[2]	**15320**
To No.Af/Near East		00.00–01.00	9525		
09.00–17.00	11785	01.00–05.00	**9525**		

Freq's underligned = 50kW; [1] Sat, Sun, Mo; [2] Mo, Wed, Fri.
INT-SIG: – V. by QSL-card or letter.

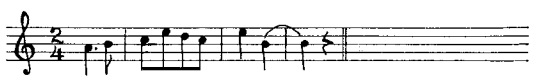


AZORES (Portuguese)

L.T: GMT÷2 h (Su.÷1 h) – **Pr.L:** Portuguese.

EMISSOR REGIONAL DOS AÇORES (Go.)
ADDR: Av. Gaspár Fructuoso, Ponta Delgada, S. Miguel. **Te:** 22624.
STATION: CSA97 4865kc 61.66m 1kW.
HOME SCE: 14.00–15.00, 20.00–24.00 – **N:** 14.30, 22.30.
ANN: "Aqui Portugal, Ponta Delgada, Emissor Reg. dos Açores da Emissora Nacional" – **INT-SIG:** Chimes – **V.** by letter or QSL-card.

CLUB DE ANGRA (Comm.)
FI: By adv – **ADDR:** Rua Conselheiro Anastacio de Bettencourt, Angra do Heroismo, Ilha Terceira. **Te:** 219.
STATION: CSB80 1394kc 215.2m 1kW.
HOME SCE: W: 10.00–12.00, 14.00–16.00, 20.00–01.00. Sat: 10.00–12.00, 14.00–01.00. Sun: 10.00–01.00 – **N:** 10.45(W), 13.00(Sun), 15.00(W), 21.00, 23.45 – **ANN:** "Aqui estacao CSB80 de Radio Club de Angra (A Voz da Terceira)" – **INT-SIG:** Viola – **V.** by letter. Records accepted – **F.PL:** Increase power, SW, FM.



EMISSORA DO CLUBE ASAS DO ATLÂNTICO (Comm.)
FI: By adv – **ADDR:** Aeroporte de Santa Maria. **Te:** 285.
HOME SCE: CSB81 1570kc 191m 1kW: W: 12.00–16.00, 19.00–02.00. Sun 11.00–02.00. **N:** 13.00, 21.00, 22.00 – **Wrp:** 14.00, 16.00, 19.00, 02.00 – **ANN:** "Aqui Santa Maria, fala a estação emissora do Clube Asas do Atlântico" – **INT-SIG:** Opens with music played on a Portuguese string instrument (viola) and guitar – **V.** by postcard.

ARMED FORCES RADIO TELEVISION SCE: see USA.

BELGIUM

L.T: GMT+1 h – **Pr.L:** French, Flemish, German.
RADIODIFFUSION-TELEVISION BELGE (R.T.B.) – **BELGISCHE RADIO EN TELEVISIE**
(Belgian Broadcasting and Television) (Go.)
FI: by state grant-in aids – **ADDR:** Place Eugène Flagey 18, Bruxelles 5. **Cable:** INR Bruxelles. **Te:** 48.81.00.
L.P: Emissions françaises: Dir. Gen: R. Wangermée. Prgr. Dir: M. Hankard. Prgr. Dir. (TV): L. P. Kammans – **Nederlandse uitzendingen:** Dir. Gen: P. Vandenbussche. Prgr. Dir: C. Mertens. Prgr. Dir. (TV): B. Jansens – **Services Communs. Gemeenschappelijke diensten (common sce's):** Tec. Dir. Gen: F. Mortiaux. Chief Eng's: G. Gourski and M. De La Fonteyne. Adm. & Finance Dir. Gen: F. Hoosemans – **International Sce.s:** Exec. Dir: F. Zoete. **German Prgr:** Head: Mrs. I. Janetzky – **Cultural Services** (including Foreign Relations): Dir: L. Wallenborn.

HOME SERVICE:

FRENCH NETWORK

Bruxelles I (Nat.)	62 0kc	483.9 m	150 kW	(Wavre)	
Bruxelles IV (Reg.)	1124 –	266.9 –	10 –	(Aye, Houdeng)*	
	1484 –	202.2 –	5 –	(Liège)*	
Anlier (Nat.)	87.6 Mc	10 kW	Bruxelles (3. prgr.)	96.1 Mc	2 kW
Houdeng (Reg.)	92.3 –	50 – *	Houdeng (3. prgr.)	99.1 –	50 –
Ougrée (Reg.)	90.5 –	50 – *	Liège (3. prgr.)	99.5 –	10 –
Anlier (Reg.)	91.5 –	10 – *	Anlier (3. prgr.)	94.1 –	10 –

* Prgr's from studios in Mons, Namur, Liège.
FM-Ougrée: 88.5Mc 10kW German Prgrs.
620kc rel. on FM 87.6Mc: W 05.30–22.00(Sat 23.00). Sun 05.30–23.00. **N, Wrp:** 05.30, 06.00, 07.00, 08.00, 09.00, 11.00, 12.00, 13.00, 15.00, 16.00, 17.00, 18.30, 21.00, 21.55. Sat, Sun 22.55 – **Wrp:** 10.50.
1124kc rel. on FM 92.3, 90.5, 91.5Mc: 09.00–14.30, 17.00–22.00.
Symphony Concert: Tues 19.00–21.00.
* Prgr's from studios in Kortrijk, Ghent and Hasselt.

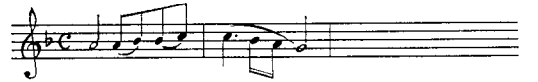
FLEMISH NETWORK

Brussels II (Nat.)	926 kc	324.0 m	150 kW	(Wavre)	
Brussels III (Reg.)	1484 –	202.2 –	0.5 –	(Kortrijk)*	
	1511 –	198.5 –	20 –	(Veltem)*	

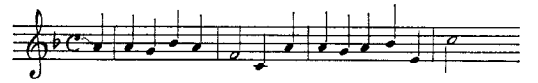
FM-Flemish Network

		Mc	kW			Mc	kW
Aalter	(Nat.)	95.7	10	Veltem	(3. prgr.)	89.5	50
Veltem*	(Reg.)	93.7	50	Aalter	(3. prgr.)	90.4	10
Genk*	(Reg.)	97.9	10	Genk	(3. prgr.)	89.9	10
Aalter*	(Reg.)	98.6	50				

Brown Boveri, Switzerland: 2×200 and 2×100kW m.w. tr's.
926kc (rel. on FM 95.7Mc):
W 05.30–22.00(Sat 23.00). Sun 05.30–23.00 – **N, Wrp:** 05.30, 06.00, 07.00, 08.00, 11.30, 12.00, 16.00, 18.00, 21.00, 21.55. Sat, Sun 22.00 – **Wrp:** 05.30, 07.00, 11.30.
1511kc (rel. on FM 93.7, 97.9 & 98.6Mc): 09.00–13.00, 16.00–22.00.
Symphony Concert: Fri 19.00–21.00.
D 16.00–18.00 or 17.00–19.00 varied prgr. and N.
ANN: F: "Radiodiffusion-Télévision Belge". **FI:** "Belgische Radio en Televisie". **G:** "Belgischer Fernseh-Rundfunk" – **INT-SIG:** Xylophone. F. Network: Extract from Grety's famous melody "Ou peut-on etre miux".



Fl. Network: The first movement of "Beiaarlied" (Extract from Rubens' cantata by Peter Benoit).



V. by QSL-card or letter Records accepted – **PUB:** "De Radio and Televisieweek" (weekly).

INTERNATIONAL SERVICE

ADDR: Directions of Overseas Sce. of R.T.B./B.R.T. 18, Place Eugene Flagey, Brussels 5. **Cable:** RTB Mondial, Brussels. **Te:** 48.81.00 – **L.P:** Exec. Dir: F. Zoete. Heads Shortwave: J. Vandenbranden, J. Mertens. Transcription & Public Rel: M. Swaenepoel, M. Depré.
STATIONS: ORU Wavre, ORU 3/ORU4=100kW, ORU5=20kW.

kc	m	kc	m	kc	m	kc	m	kc	m
6140	48.86	9715	30.88	11850	25.32	15365	19.52	17860	16.80
7140	42.02	9745	30.78	15335	19.56	17835	16.82	21510	13.94
9705	30.91								

AKG, Austria: studio equipments (recorders, microphones).
Telefunken A.G., Germany: One 20kW sw-tr. studio equip.
Abbreviations: A=French/Flemish; B=French/Flemish/Congolese; C=Congolese; I=Africa; II=No. America; III=So. America; IV=So. Europe; V=Far East.

Time	L	Area	4/11–2/3 kc	3/3–6/5 kc	6/5–2/9 kc	3/9–4/11 kc
10.00–12.00	B	I	17860	17860	17860	17860
		I	21510			
		I	15335			
12.15–13.00a)	A	I	17860	17860	17860	17860
		V	15365			
		IV	15335			
13.30–15.45b)	C	I	17860	17860	17860	17860
Sat		I	21510			
		I	15335			
13.30–16.30b)	A	I	17860	17860	17860	17860
Sun		I	21510			
		I	15335			
16.00–17.15	C	I	9745	9745	9745	9745
		I	17835			
		I	21510			
17.15–18.30	C	I	9745			
17.30–18.15a)	A	V	9715	9715	9715	9715
		IV	11850			
18.30–21.00c)	A	I	9745	9745	9745	9745
		I	9705			
		I	11850			
21.15–23.00d)	A	I	9745	9745	9745	9745
		III	6140			
		IV	7140			
23.15–01.00d)	A	I	9745	9745	9745	9745
		II	6140			
		IV	7140			

a) for missionaries and seamen (alternatively in French and Flemish); b) Sat (Congolese), Sun (Sport, French/Flemish); c) for Belgians and Africans; d) for Belgian seamen and Belgians in the world, alternatively in French and Flemish.
N: French: 10.30, 11.30, 19.30. **Flemish:** 10.15, 11.45, 19.00.
ANN: F: "Ici Bruxelles, Radiodiffusion-Télévision Belge, Emissions Mondiales". Fl: "Hier is Brussel, de Belgische Radio en Televisie, Wereldomroep" – **SIGNALS:** Starting: Xylophone – **INT-SIG:** Gevaerts "Vers l'avenir". The signal at the start of each broadcast: "Oú peut-on être mieux" – Closing: Belgian National Anthem – V. by QSL-card. Records accepted.

BULGARIA (Peoples Rep. of)

L.T: GMT+2 h – **Pr.L:** Bulgarian.

BULGARIAN BROADCASTING SERVICE (Go.)

FI: By state – **AD:** 30 min. per day – **ADDR:** Bulgarian Broadcasting at the Ministry of Education and Culture, 4 Dragan Zankov Str, Sofia. **Cable:** Bolgarradio. **Te:** 7.10.44 – **L.P:** Dir. Gen: N. Ganchovsky. Dir. Tec: J. Jerkov. Chief of Foreign Exchange Dept: K. Vladov.

HOME SCE:	kc	m	kW		kc	m	kW
Sofia II	593	506	60	Stara Zagora	1223	235	20
Sofia I	827	362.7	100	Pavlovo	1484	202	2
Varna	1124	267	5	Sofia III	7670	39.11	15

AKG, Austria: Studio equip. (recorders, microphone).
1st PRGR: 03.25–08.37 on 593, 1124, 1223, 1484kc, 08.37–09.55 on 593, 827, 7670kc, 09.55–14.55 on 593, 827, 1124, 1223, 7670kc. 14.55–20.30 on 593, 1484kc, 20.30–22.00 on 593, 1124, 1223, 1484kc.
N: 03.30, 04.30, 08.30, 10.30, 14.00, 15.00, 16.00, 16.55, 18.30, 20.30, 21.50 – **Wrp:** 03.40, 10.45, 18.45 – **Folklore Music:** Mostly at 04.00–06.00, 10.00–14.00, 16.00–18.00.
2nd PRGR: 14.55(Sun 08.30)–20.30 on 827, 1124, 1223kc.

FOREIGN SERVICE

827 kc	362.7 m	100 kW	9560 kc	31.38 m	100 kW
6070 –	49.42 –	120 –	9700 –	30.93 –	120 –
6170 –	48.62 –	50 –	11850 –	25.32 –	100 –
7255 –	41.35 –	120 –	15330 –	19.57 –	120 –
7290 –	41.15 –	50 –	17800 –	16.85 –	50 –
7670 –	39.11 –	15 –			

TO EUROPE & MID. EAST

Arabic	kc
11.30–11.55	9700, 11850, 15330
17.00–17.55	7255, 9700, 11850
19.30–20.00	6170, 7670
Bulgarian	
12.30–12.40	6070, 7255, 9700
22.00–22.10	6070, 7255, 9700, 11850
English	
19.30–20.00	6070, 7290
21.30–22.00	6070, 7290
00.00–00.30[1]	9700
Esperanto	
19.00–19.25(Sun)	6170, 7670
23.30–23.55(Mo)	6170, 7255
French	
19.00–19.30	6070, 7290
21.00–21.30	6070, 7290
German	
20.00–21.00	6070, 7290
Greek	
05.30–06.30(Sun)	827, 6170, 7255
06.00–06.30	827, 6070, 7670
12.00–12.25	6070, 7255, 9700
16.00–16.25	6070, 7255, 9700
19.00–19.30	6170, 7670
20.30–21.00	827, 6170, 7670, 11850
Italian	
18.30–18.55	6070, 7255
21.00–21.30	6170, 7670
22.00–22.30[2]	827
Macedonian	
04.30–05.00	827, 6070, 7670
06.30–07.30(Sun)	827, 6070, 7670
21.00–21.30	827
Serbo-Croatian	
05.00–05.30	827, 6070, 7670
07.30–08.30(Sun)	827, 6070, 7670
18.00–18.25	6070, 6170, 7255, 7290
21.30–22.00	827, 6170, 7670
Spanish	
20.30–21.00	7255, 9700
Turkish	
05.30–06.00	827, 962, 1376, 7670, 6070
05.30–06.30(Sun)	962, 1376, 6070, 7670
11.00–11.30	7255, 9700, 11850
16.30–16.55	6070, 7255, 9700
18.30–19.00	6170, 7670
20.00–20.30	6170, 7255, 7670

TO AFRICA

English	kc
19.00–19.25	9700, 11850, 15330
21.05–21.30	7255, 9700, 11850
French	
19.30–19.55	9700, 11850, 15330
21.30–21.55	7255, 9700, 11850

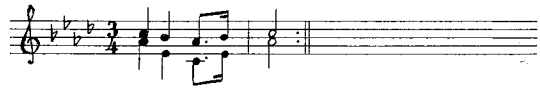
TO NO. AMERICA

Bulgarian	kc
23.30–24.00	9700
00.30–01.00	9700
English	
00.00–00.30[3]	9700
01.00–01.30	9700
04.00–04.30	9700

TO SO. AMERICA

Bulgarian	kc
23.00–23.25	7255, 9700, 11850
00.30–01.00	9560, 11850
Spanish	
22.30–23.00	7255, 9700, 11850
00.00–00.30	9560, 11850

[1] Concert (also for No. America) [2] exc. Sat. [3] Concert (also for Europe).
DX-PRGR: English: Fri 19.30, 21.30 (to Gt. Britain); 01.00, 04.00 (to USA); **German:** 1st & 3rd Sun of the month 20.00; **French:** 1st Sun of the month at 21.00.
ANN: Home Sce: "Govori Sofia" – Foreign Sce: **E:** "This is Sofia Bulgaria calling" – **F:** "Ici Sofia, Radiodiffusion-Television Bulgare" – **Tu:** "Burasi Sofia radiosu" – **Gr:** "Milai i Sofia" – **G:** "Hier spricht Sofia Bulgarien" – **I:** "Que é Radio Sofia" – **Arabic:** "Huna Sofia" – **Sp:** "Habla Sofia". – **INT-SIG:** The beginning of a Bulgarian song, which begins with the words "Dear Homeland":



V. by QSL-card or letter. Records accepted. – **PUB:** Prgr.schedule.

CZECHOSLOVAKIA

L.T: GMT+1 h – **Pr.L:** Czech, Slovak.

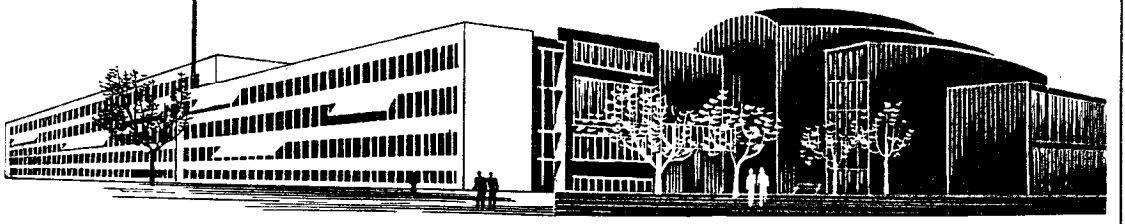
CESKOSLOVENSKY ROZHLAS (Go.)

FI: By license payments – **AD:** Tues 17.45, Wed 14.10, Sat 16.30, Sun 21.25 – **ADDR:** Czechoslovak Radio, Praha 2, Vinohradska 12. **Cable:** Radiopraha – **Te:** 232151 – **L.P:** Dir.Gen: K. Hoffmann. Dep. Dir. Gen: J. Riečan (Slovakia), Dept. Dir. Gen: R. Behal (Prgrs). Dep. Dir. Gen: K. Hrabal (Foreign Sce). Dep. Dir. Gen: M. Junek (Engineering). Dep. Dir. Gen: J. Janousek (Adm). Head Foreign Rel: K. Reif.
HOME SERVICE: Medium Wave

Name	kc	m	kW		kc	m	kW
ČS I	272	1102.9	200	Bratislava	1232	243.5	100
Praha	638	470.2	150	ČS I	1286	233.3	100
Bratislava	701	427.2	100	Praha	1484	202.2	2
Praha	953	314.7	100	Bratislava	1484	202.2	2
Praha	953	314.7	15	ČS I	1520	197.3	1
Bratislava	1097	273.5	150	Ostrava	1594	188.0	2
FM							
Praha	68.96	Mc	4 kW	Mid. Moravia	71.87	Mc	1 kW
	71.63	–	4 –	No. –	69.08	–	1 –
East Bohemia	69.35	–	4 –	West Slovakia	68.84	–	8 –
	67.22	–	1 –		66.98	–	1 –
No. –	70.58	–	4 –	Mid. Slovakia	69.68	–	8 –
	72.20	–	1 –		72.50	–	1 –

Listen to
THE VOICE OF DENMARK

The Danish short wave transmissions are beamed to North America, South America, Africa, India and the Far East



To North America on 31.51 m – 9.520 kc/s.
Daily 1.30 – 2.30 and 3.00 – 4.00 GMT. E.S.T.: 8.30 – 9.30 and 10.00 – 11.00 p. m.
DX-bulletin: Wednesdays about 2.20 a. m. and 3.50 a. m. GMT.

To South America on 31.51 m – 9.520 kc/s.
Mondays, Wednesdays and Fridays 21.45 – 22.45 GMT.

To Far East, Australia and New Zealand on 19.78 m – 15.165 kc/s.
Tuesdays, Thursdays and Saturdays 9.00 – 10.00 a. m. GMT.
DX-bulletin: Thursdays 9.50 – 10.00 a. m. GMT.

To South Asia on 19.78 m – 15.165 kc/s.
Tuesdays, Thursdays and Saturdays 14.30 – 15.30 GMT.
DX-bulletin: Thursdays 15.20 – 15.30 GMT.

To North Africa and Near East on 31.51 m – 9.520 kc/s.
Daily 19.45 – 20.45 GMT.
DX-bulletin: Tuesday about 20.35 GMT.

To South Africa on 19.78 m – 15.165 mc/s.
Daily 18.30 – 19.30 GMT.
DX-bulletin: Tuesday about 19.20 GMT.

Special broadcasts to Danish ships daily 06.30–07.00 GMT. Far East 19.78 m–15.165 kc/s, 12.00 – 12.30 GMT. North America 19.78 m – 15.165 kc/s, 14.00 – 14.30 GMT. South Asia 19.78 m – 15.165 kc/s, 16.00–16.30 GMT. Mediterranean and Middle East 31.51 m – 9.520 kc/s, 21.15 – 21.45 GMT. South America 31.51 m – 9.520 mc/s, and 01.00 – 01.30 GMT. North America 31.51 m – 9.520 kc/s.

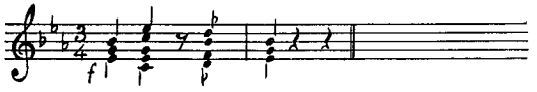
Listeners all over the world are invited to send reception reports together with their criticisms and programme suggestions to

the **SHORTWAVE DEPARTMENT, RADIO HOUSE, COPENHAGEN V., DENMARK**

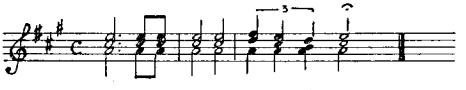
Answer by letter or QSL-card

We.	–	69.56	– 8 –	East	–	68.87	– 8 –
		67.34	– 1 –			66.38	– 1 –
So.	–	70.07	– 8 –	Žilina		69.50	– 1 –
Mid. Moravia		69.86	– 8 –	Tatry		69.20	– 1 –

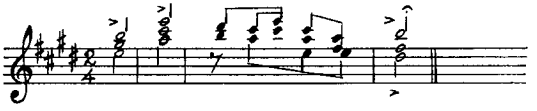
AKG, Austria: delivered studio equip. (recorders, microphones).
ČS I: Czech, Slovak: 03.30(Sun 05.00)–23.00. **N, Wrp:** 03.30, 04.30, 05.30, 06.30, 08.30, 11.30, 15.00, 17.00, 20.00, 22.00. Sun 05.00, 06.00, 07.45, 12.00, 17.00, 20.00 – **Night Concert** (with multilingual ann): Tues, Thurs, Fri, Sat 22.15–23.00.
PRAHA: Czech: 03.30(Sun 05.00)–01.00. **N, Wrp:** 03.30, 04.00, 05.00, 06.00, 08.00, 10.00, 12.00, 14.00, 16.00, 18.00, 21.00, 22.50, 00.55. Sun 05.00, 06.45, 11.05, 18.00, 21.00, 22.50, 00.55 – **L.L: Russian:** Wed 15.30–15.45. **Spanish:** Tues 10.20–10.40, 17.05–17.25, 21.00–21.20, Thurs 15.40–16.00 – **Night Concerts** (with multilingual ann): Mo, Wed, Sun 22.00–22.50.
Bulgarian on 1520/1286kc: Sat 11.45–12.00, 16.30–16.45.
Polish on 1520/1594kc: W 15.50–16.00. Sun 10.30–11.00.
German on 1286kc: W 16.00–16.15. Sun 08.00–09.00.
BRATISLAVA: N, Wrp: W 03.30, 04.00, 05.00, 06.00, 10.00, 12.00, 14.00, 16.00, 18.00, 21.00, 22.55. Sun 05.00, 06.45, 11.30, 18.00, 21.00, 22.55 – **L.L: Russian:** Thurs 15.00–15.15 – **Hungarian:** Mo-Fri 06.00–06.15, 06.50–07.00, 11.00–12.00, 14.00–15.00. Sat 06.00–06.15, 06.50–07.00, 11.00–15.00. Sun 07.00–15.00 – **Ukrainian:** Mo-Fri 15.00–15.30, 16.15–16.25. Fri 09.20–09.55. Sat 15.00–16.00, 16.15–16.25. Sun 06.30–06.45, 13.30–14.30.
INT-SIG:
Praha: The two opening bars of Smetana's symphonic Poem "Vyšehrad".



ČS: Fanfares from a March by V. Dobiás.



Bratislava: Fanfares from a March by B. Urbanec:



FOREIGN SERVICE 100kW exc. 1097kc 150kW

kc	m	kc	m	kc	m	kc	m
1097	273.5	6135	48.90	11725	25.59	15448	19.42
1286	233.3	7345	40.85	11905	25.20	17750	16.90
5930	50.57	9505	31.56	11990	25.02	17830	16.83
6005	49.96	9550	31.41	15285	19.63	21450	13.99
6055	49.55	9795	30.63	15420	19.46		

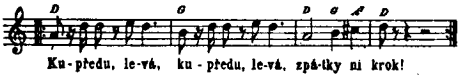
a=Europe; b=Eu, Near & Middle East; c=Africa; d=Near & Middle East, So. & So. Ea. Asia; e=So. Ea. Eu; f=No. We. Eu, British Isles; g=Ea. Africa; h=Eu, No. Af; i=So. We. Eu; j=No. America (Ea. & C. Part, Caribbean); k=We. Af; l=No. & We. Af; m=Ea. & C. Af; n=No. & Ea. Af; o=So. America (East); p=So. America (West); q=No. & C. Am; r=No. America (West), Mexico.

Arabic	kc		kc
12.30–13.00	11725(h), 15285, 17750(g)	15.00–16.00*	15285, 17830(j)
16.30–17.30	9550, 11990(g), 15448(l)	16.00–16.30	9550, 11990(g), 15448(k)
20.00–21.00	5930(n), 9795(m), 9550, 11905(k)	17.30–18.00	9550, 11990(g), 15448(k)
Czech		19.00–19.30	5930, 6025(f)
07.30–08.00	6055(a), 11945(b), 15285, 15420(c), 21450(d)	01.00–02.00	5930, 7345, 9550, 9795, 6005(j)
21.00–21.30	5930(a), 7345(o), 9550(q), 9795(p), 11905(o)	03.30–04.30	5930, 7345, 9550(j) 6005, 9795(r)
22.30–23.00	5930(o), 7345(j), 9550, 9795, 11905(o)	**French**	
03.00–04.30	5930, 7345, 9550(j) 6005, 9795(r)	11.00–12.00	6055, 9505(a)
English		18.00–18.30	9550(g), 11990, 15448(k)
08.00–09.00	6055(a), 11945(b), 15285, 15420, 21450(d)	19.30–20.00	5930(n), 9795(m), 9550, 11905(k)
12.00–12.25	9505, 11725, 15285(f)	**German**	
		07.00–07.30	6055(a)
		09.00–10.30	6055, 9505(a)
		10.30–11.00	6055, 6135, 9505(a)
		11.00–11.30	6135(a)
		Greek	
		11.30–12.00	6135(a), 15285(e)
		17.20–18.00	5930, 7345(a)

Italian	kc	Spanish	kc
12.00–12.45	6055(a)	13.00–13.30	11725, 15285, 17750(i)
17.00–17.30	5930, 7345(a)	23.00–24.00	5930, 9550(o), 9795, 11905(o), 7345(j)
Portuguese			
21.30–22.00	5930, 7345, 9550,	02.00–03.00	5930, 7345(j), 6005
00.00–01.00	9795, 11905(o)		9795(r), 9550(p)
Serbo-Croat		**Swedish**	
09.30–10.00*	6135, 11725(a)	10.00–10.30	6135, 11725(a)
15.30–16.00	6055, 7345(a)	12.45–13.30	6055, 9505(a)
18.00–18.30	5930, 7345(a)	16.30–17.00	5930, 7345(a)

* Sun only.

On 1286kc: English 22.00–22.30, 23.05–23.30; **French** 20.30–21.00, 21.30–22.00; **German** 17.15–18.30, 19.00–19.30, 20.00–20.30; **Italian** 18.30–19.00; **Spanish** 23.00–23.30.
Prgr's for radioamateurs and SWL's: English (to No. Am. and Pacific): On alternate Thurs (repeated Sun) at 20.00 and 22.30 h. EST. The repeat for Far East and Australia is heard on alternate Fri (Mo) at 08.00 h – **English** (to Europe): Every first Mo of the mo. at 19.00 h and repeated at 22.00 h – **Swedish:** Every Thurs at 16.30 h – Fri 10.00 (repeat) – **German:** Every first Thurs in the mo. 19.00. For Austria: Every third Sun in the mo. at 11.00, repeated following Mo at 17.15, Tues 11.00.
ANN: E: "This is Prague" – **Arabic:** "Huna Pragh" – **F:** "Ici Prague, Tchécoslovaquie" – **I:** "Qui Praga, Cecoslovacchia" – **G:** "Hier spricht Prag" – **Greek:** "Edo Praga" – **Yugoslavian:** "Govori Prag" – **Sp:** "Aqui Radio Praga, Checoslovaquia" – **P:** "Aqui fala a Radio Praga" – **Swedish:** "Här är Prag" – **Czech/Slovak:** "Poslouchate Prahu, vysílání Čs. rozhlasu pro krajany" – **INT-SIG:** The opening bars of the song "Forward Left" by J. Seidl, played on trumpets.



V. by QSL-card and letter. Records accepted – **PUB:** Foreign Sce. sched. free on request.

DENMARK

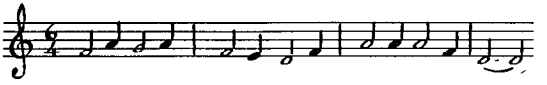
L.T: GMT+1 h – Pr.L: Danish.
RADIO DENMARK (Go.)
FI: By license payment – **ADDR:** Radio Denmark, Radiohuset, Rosenørnsallé 22, Copenhagen. **Cable:** Danradio. **Te:** 350647.
L.P: Dir. Gen: Hans Sølvhøj. Prgr. Dir/Sound: Aksel Dahlerup. Prgr. Dir/TV: Jens Fr. Lawaetz. Dir. Adm: Ejnar Jensen. Dir. Secretariate: Erik Carlsen. Dir. Music: Vagn Kappel. Dir. Drama: Felix Nørgaard. Dir. Entertainment: Svend Pedersen. Dir. Inf. & Shortwave: P. Berg. Dir. Tec: Fr. Heegaard. Dir. N: N. Grunnet.
STATIONS: Long & Medium Waves:

	kc	m	kW	Prgr		kc	m	kW	Prgr
Kalundborg	245	1224	150	I	København	1484	202	2	I
Kalundborg	1061	283	60	II	Ålborg	1484	202	0.25	II
København	1430	210	10	II	Tønder	1484	202	2	II
Skive	1430	210	70	II	Esbjerg	1594	188	2	II

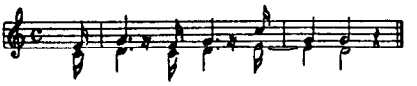
FM:	Mc	kW	Prgr.		Mc	kW	Prgr.
Århus	88.1	30	III	Sydsjælland	94.8	60	I
Fyn	89.0	60	I	Sønderjylland	95.1	50	I
Ålborg	89.7	30	III	Århus	95.9	30	II
Bornholm	90.0	30	III	København	96.5	60	II
Vestjylland	90.2	60	I	Fyn	96.8	60	II
København	90.8	60	I	Sønderjylland	97.2	50	III
Århus	91.7	30	I	Sydsjælland	97.5	60	II
Fyn	92.6	60	III	Ålborg	98.1	30	II
Vestjylland	92.9	60	III	Vestjylland	98.5	60	II
Ålborg	93.3	30	I	Bornholm	99.3	30	II
København	93.85	60	III	Sydsjælland	99.6	60	III
Bornholm	94.5	30	I	Sønderjylland	99.9	50	II

AKG, Austria delivered studio equip. (recorders, microphones).
Telefunken, Germany: studio equip.
The Marconi Company Ltd, G.B: delivered m.w. tr's: Århus 5kW, Fyn 5kW, Skive 100kW, Kalundborg 3×100, 8×5kW – Ant: Ålborg, Bornholm, Næstved, Vestjylland – studio equip: Åalborg, Århus, Bornholm, Fyn.
HOME SCE:
1st Prgr: W 05.00–23.05, Sun 07.00–23.05.
N: 05.00(W), 06.00(W), 07.00, 08.00(W), 11.30, 14.00(W), 17.30, 21.00, 22.00(exc. Sat), 23.00 – **Wrp:** 07.45, 10.50(W), 17.05 – **L.L: English:** Tues, Fri 08.45–09.05. **German:** 2nd & 4th Sun 07.05–07.25 – **Request Prgr:** Sun 11.00–13.00. Tues 18.00–19.00 – **Rlg:** Sun 09.00, 13.00, W 07.30.
2nd Prgr: W: 16.00–22.05(Sat 23.05). Sun: 07.00–11.00, 16.00–22.05. Mo: 18.00–18.45 not on 1061 kc (Kalundborg) and 1430kc (Copenhagen). **N:** 17.30, 21.00(exc. Sat), 23.00.

L.L: English: Mo, Thurs 16.40–17.00, Tues 16.00–16.20. **German:** Mo, Thurs 16.20–16.40. Sun 07.40–08.00. **French:** Sun 07.20–07.40. **Italian:** Mo, Thurs 16.00–16.20. **Russian:** Tues 16.20–16.40. **Swedish:** Sun 07.40–08.00 (twice monthly).
3rd Prgr (Musical Prgr): W: 05.00–07.05, 11.00–23.05, Sun 11.00–23.05 (this prgr. is also relayed by the tr's of the 2nd prgr: Mo–Fri: 05.00–07.05, 11.00–16.00, 22.00–23.05, Sat: 05.00–07.05, 11.00–16.00, Sun: 11.00–16.00, 22.00–23.05).
Reg. Prgr's: Mo 18.00–18.45 on Nordjylland (North Jutland): 1484kc, 98.1Mc (Ålborg) – Midtjylland (Mid Jutland): 1430kc (Skive), 95.9Mc (Århus), 98.5Mc (Vestjylland – West Jutland) – Sydjylland (South Jutland): 1484kc (Tønder), 1594kc (Esbjerg), 99.9Mc (Sønderjylland – South Jutland) – Fyn (Funen): 96.8Mc – Sjælland (Seeland): 97.5Mc – København (Copenhagen): 96.5Mc – Bornholm: 99.3Mc.
ANN: "Danmarks Radio, Program I" (Program II) – **INT-SIG:** Prgr. I: From an old Danish folksong. D. at 11.00 and 19.00: The chimes of the Town Hall in Copenhagen.



Prgr. II:



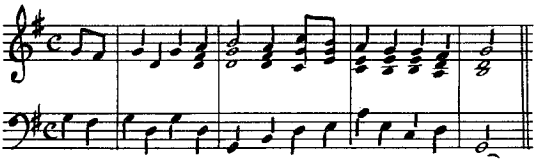
FOREIGN SERVICE: (DS = Danish Ships)

	kc	m	kW		kc	m	kW		kc	m	kW
OZF36060		49.50	50	OZF5 9520		31.51	50	OZF9 15320		19.58	50
OZF47260		41.32	50	OZF715165		19.78	50				

Times	kc	Area	Times	kc	Area
01.00–01.30	9520	DS (No.Am.)	14.30–15.30[1]	15165	So.As.
01.30–02 30	9520	No.Am.	16.00–16.30	9520	DS (ME)
03.00–04.00	9520	No.Am.	17.30–18.20	9520	Greenland
06.30–07.00	15165	DS (FE)	18.30–19.30	15165	So.Africa
09.00–10.00[1]	15165	FE, Au., NZ.	19.45–20.45	9520	No.Africa, ME.
12.00–12.30	15165	DS (No.Am.)			
13.15–13.30	15165	Greenland	21.15–21.45	9520	DS (So.Am.)
14.00–14.30	15165	DS (So.As.)	21.45–22.45[2]	9520	So.Am.

[1] Tues, Thurs, Sat. [2] Mo, Wed, Fri.

All broadcasts are of one h duration, and generally consist of 30 min's in Danish and 30 min's in E. (So.Am.: 40 min's in Danish and 20 min's in Sp.) – All broadcasts commence with N. in Danish; and in E and Sp. respectively, at the beginning of the E and Sp. portions of the prgr.
Outline of week's prgr. in Danish and E as broadcast to No.Am. and Af: **Mo:** N. Literature, N. Classical, Da. Music, D. Views on the N – **Tues:** N. Reportage, N. On-the-Spot. **DX-Bulletin** (DX-Bull. comes on 8 to 10 min's before sign off, Thurs for FE, Au, NZ & So.As.) – **Wed:** N. Light prgr, N. Folk Music, Actualities – **Thurs:** N. Denmark round, N. Concert or Features – **Fri:** N. Oldfashioned, Econ. or Agri. Review, N. Light Music. Anything – Anybody – **Sat:** N. Sat Night Club (mbg. & request prgr.) – **Sun:** Weekly N-Roundup, Church Services, Reportages, etc. (generally all Danish).
Thrice-weekly prgr. to So.America and FE-Au-NZ-So.As. follow the above general outline.
ANN: "Danmarks Kortbølgesender" – "You are tuned to the Voice of Denmark" – All tr. begin with the chimes of the Town Hall followed by the National Anthem (exc. DS which commence with 8 bells) – **INT-SIG:** The first bars of "Som en rejselysten Fläde" composed by Carl Nielsen:



Message to Listeners: Radio Denmark is anxious to receive reports on prgr. and on reception conditions from all parts of the world. It makes every endeavour to get into touch with countrymen and listeners in countries abroad with a view to provide the best possible s.w. sce – **V.** by letter or QSL-card. Records accepted. **PUB:** "Voice of Denmark" (quarterly) mailed upon request.

O. I. R. T.

Review of the International Radio and Television Organization (O. I. R. T.):

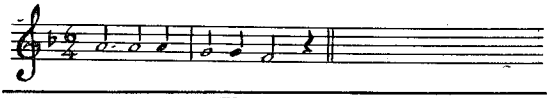
RADIO & TELEVISION

published in English, French, Russian and German brings every 2 months valuable information on the world of Broadcasting and Television.

Subscription: The International Radio and Television Organization (O. I. R. T.), U mrázovky 15, Praha 5, Czechoslovakia.

FAROE ISLANDS (Danish Territory)

L.T: GMT – **Pr.L:** Faroese.
UTVARP FØROYA
ADDR: Torshavn, **Te:** 2437. **Telex:** 26 – **L.P:** Mgr: N. J. Arge.
STATION: 584kc 513m 5kW.
The Marconi Company Ltd, G.B. delivered 5kW tr.
HOME SCE: Mo-Fri: 07.15–07.45(1/9–31/3) 12.20–12.50, 18.30–19.15. Sat 07.15–07.45(1/9–31/3), 12.20–12.50, 18.30–21.00. Sun 14.00–18.00. Prgr. consists of Wrp, N. from the Faroes, foreign N, lectures, music, features – Wrp, morning-prayer, music, N. – **ANN:** "Utvarp Föroya" – **INT-SIG:** Xylofon – **V.** by letter. Records accepted.



FINLAND

L.T: GMT+2 h – **Pr.L:** Finnish, Swedish.
OY YLEISRADIO AB (Go.)
FI: By license payments – **ADDR:** Unioninkatu 16, Helsinki. **Cable:** Yleisradio. **Te:** 630691 – **Telex:** 12-735 – **L.P:** Dir. Gen: E. Sundström. Dir. Finnish Prgr: J. Koskiluoma. Dir. Swedish Prgr: C. Schildt. Dir. Tec: vacant. TV-prgr: V. Zilliacus.

HOME SERVICE

FINNISH NETWORK: W 04.00–22.00, Sun 05.30–22.00.

L-M Waves:	kc	m	kW		kc	m	kW
Lahti	254	1181	200	Vaasa	1241	242	25
Oulu	433	693	10	Helsinki II	1412	212	2
Joensuu	520	577	1	Turku II	1412	212	0.4
Helsinki I	557	539	100	Tampere	1421	211	1
Kuopio	755	397	20	Pietarsaari	1484	202	1
Ylivieska	836	359	10	Pori	1484	202	1
Turku	962	312	100	Tammisaari	1484	202	0.2

The Marconi Company Ltd, G.B. delivered 100kW tr. (Helsinki).
Brown Boveri, Switzerland, delivered lw-tr. Lahti 2×100kW, mw-tr Oulu 25kW.
AKG, Austria, delivered studio equip. (recorders, microphones).
Telefunken AG, Germany, delivered studio equip.

FM:	Mc	kW		Mc	kW		Mc	kW
Pori II	87.7	0.1	Tampere I	93.7	45	Kuopio II	96.2	25
Iisalmi I	87.7	0.7	Helsinki I	94.0	40	Kotka	96.4	0.3
Utsjoki	87.9	0.01W	Ylivieska I	94.0	15	RovaniemiI	96.7	10
Ähtäri II	88.0	1	Kajaani 1	94.3	40	Pihtipudas I	97.0	10
PihtipudasII	88.6	10	Turku I	94.3	25	TammisaariI	97.0	3
Mikkeli I	88.9	10	Mikkeli II	94.6	10	Oulu II	97.3	50
Taivalko.I	89.2	45	Kristiina I	94.6	10	Pori I	97.3	10
Oulu I	90.4	50	Ähthäri I	94.9	1	Kokkola II	97.6	0.7
Tampere II	90.7	45	Sammaltunt.	95.2	15	Pyhätunturi	97.6	15
Joutseno I	90.7	25	Forssa	89.2	0.1	Lahti II	97.9	40
Maarianh.	91.3	5	Kilpisjärvi	89.4	0.01W	Pello	98.2	15
Kuopio I	91.6	25	Kemi II	89.5	10	Helsinki	98.8	40
Taivalko.II	91.9	45	Turku II	89.8	15	Kaunispää	98.8	15
Rauma	92.0	0.3	Jyväskylä II	89.9	25	Kajaani II	98.9	40
Kemi I	92.2	10	Koli I	90.1	15	RovaniemiII	94.0	10
Jyväskylä I	92.5	25	Lapua I	90.1	60	Savonlin.II	99.1	0.7
Iisalmi II	92.8	0.7	Lahti I	95.5	40	Kokkola I	99.7	0.7
Lapua II	93.1	60	Savonlinna I	95.8	10	Tammisaa.II	99.7	3
Koli II	93.4	15	Ylivieska II	96.1	15			

N: W: 04.00, 06.00, 09.30, 10.30, 14.50, 17.00, 20.00. Sun: 06.30, 10.30, 17.00, 20.00 – **Wrp:** 06.00(Sun 06.30), 10.30, 17.00, 20.00.
BILLINGUAL NETW. (Finnish, Swedish): W: 04.00–22.00. Sun: 05.30–22.00.

M.W.	kc	m	kW		kc	m	kW
Helsinki I	557	539	100	Turku I	962	312	100
Pietarsaari	1484	202	1	Vaasa	1241	242	25
Tammisaari	1484	202	0.2				

SHORT WAVE: Pori OIX7 6120kc 49.02m 15kW.

FM:	Mc	kW		Mc	kW		Mc	kW
Loviisa	89.2	0.05	Tammis III	93.1	3	Turku III	98.2	25
Kristiina II	91.0	10	Pietarsaari	94.3	10	Pori III	99.4	3
Helsinki III	91.1	40	Vaasa	95.2	6			

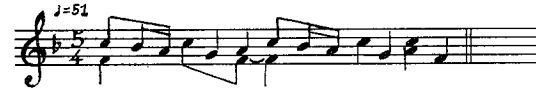
Swedish Prgr: N: W: 04.10, 06.10, 09.35, 10.40, 14.55, 17.20, 20.10. Sun: 06.40, 10.40, 17.20, 20.10 **Wrp:** 06.10(Sun 06.40), 10.40, 17.20, 20.10 - **Wrp. for seafarers:** 11.00 (also on 254, 433kc), 17.10, 20.10.
Additional Swedish Prgr: 05.30–05.45(W), 06.50–07.05(Sun), 11.00–12.35(Sun), 11.10–12.10(Tues, Fri), 15.00–15.10(Mo, Wed, Fri), 16.00–17.00(Mo, Wed, Fri), 17.30–18.20(Tues), 17.30–18.30(Thurs, Sat), 17.30–18.45(Sun), 20.20–20.25(Sun), 20.20–21.00(Tues, Fri).
FM st's only: 16.00–17.00 Sun, Tues, Thurs, 16.05–17.00 Sat, 17.30–18.15 Mo, 17.30–20.00 Wed, 17.30–18.05 Fri, 18.30–20.00 Sat.
Exclusively Swedish Prgr's: FM: Mariehamn 91.3Mc 5kW.

FOREIGN SERVICE

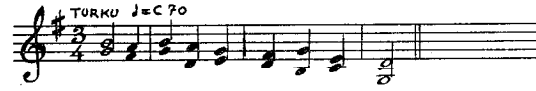
STATIONS: Pori.

OIX7	6120kc	49.2 m	15kW	OIX8	11805kc	25.41m	10kW
OIX2	9555 –	31.40–	15 –	OIX4	15185 –	19.76–	100 –

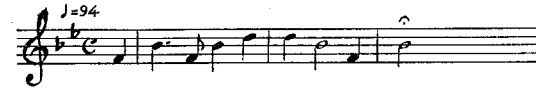
ENGLISH for Europe on 9555/11805/15185kc: Mo 16.00–16.30 "Finlandia Mixture" – Fri 16.00–17.00, 1st & 3rd Fri: DX Prgr. "Around the World" – 2nd & 4th Fri "Musical Mailbag".
Repeat for No.America on 9555/11805/15185kc: Sept. to May: Tues 11.30–12.00, Sat 11.30–12.30 – May to Sept: Mo 20.30–21.00, Fri 20.30–21.00.
FINNISH & SWEDISH for Eu:
6120kc: W: 04.00–22.00. Sun: 06.30–22.00 (rel. Home Sce.)
9555, 11805kc: W: 06.00–06.20, 14.50–15.10. Sun: 06.30–06.50 N. Fi, Swedish.
9555, 11805, 15185kc: 10.00–10.50, 16.00–18.30 (Mo 16.30–18.30, Fri 17.00–18.30). **Swedish:** 10.40–10.50, Tues 17.30–18.20, Wed 17.40–18.30, Fri 17.30–18.05, Sat 17.30–18.30. **Prgr. for seamen in Fi, Swedish:** Sun: 17.30–18.30. Other times: Fi.
Repeat for No.America on 9555, 11805, 15185kc (same prgr. as to Eu. 16.00–18.30): Sept. to May: 11.30–14.00 (Tues 12.00–14.00, Sat 12.30–14.00); May to Sept: 20.30–23.00 (Mo 21.00–23.00, Fri 21.30–23.00).
ANN: Fi: "Suomen Yleisradio" followed by prgr. ann. (all stations). Swedish: "Finlands Rundradio". E: "Suomen Yleisradio – Finlands Rundradio – This is the shortwave Section of the Finnish Broadc. Company in Helsinki, the capital of Finland" – **INT-SIG:** Lahti and Helsinki based on an old Finnish Folk melody.



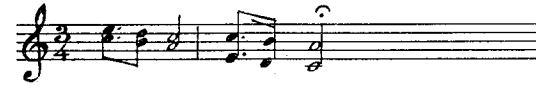
Turku: A fragment of "Ergo plebs finnonica", the hymn of St. Henrik.



Vaasa: The first notes of "Vasa March" by Karl Collan.



Kuopio: The first notes of a well-known song about the beauty of the lake Kalavesi:



V. by QSL-card – **PUB: Programme-schedules to listeners:** We distribute only duplicated schedules of the shortwave prgr, containing the same information as given in the World Radio Handbook. Can be obtained by writing to "DX-Editor" of the Finnish Broadcasting Company.

FRANCE

L.T: GMT+1 h – Pr.L: French.
RADIODIFFUSION-TELEVISION FRANÇAISE (Go.)
Central Service:
ADDR: Maison de la Radio-Television 116, quai de Passy, Paris 16. **Cable:** Radiodi, Paris. **Te:** BAG 22-22. **Regional Services:** 32–34, rue Ulysse Gavon, Bordeaux – 36, Bd. de la Liberté, Lille – 6 Bd. Victor

Advertisement

TELEVISION IN FINLAND

The first TV test transmission by wire was made in Finland in the year of 1950.

Finland's Television inaugurated regular programmes on Jan. 1st, 1958. This happened after a period of technical trials.

In the course of one year, 1958, Finland's Television put into operation four new TV transmitters to cover one third of the population. At the end of 1963 the number of transmitters increased to 33 and 92 % of the population is now reached by TV.

The number of TV viewers is rapidly increasing. On Jan. 1st, 1959 they were 7.757, two years later the figure amounted to 92.000, at the beginning of 1962 there were 190.000 licences, and at the end of August 1963 410.475.

Finland's Television is on the air 6-7 hours a day.

A TV studio centre is under construction. As a first part of it a large studio, capacious enough for TV play production, was completed in 1961. Another large studio is under construction.

For live broadcasts in different parts of the country there are two outside broadcasting units in use.

LISTEN TO FINLAND

FINLANDIA MIXTURE tells you what Finland is apart from the country of the thousands lakes, the "sauna", and the midnight sun. Every monday at 16.00–16.30 G.M.T.

AROUND THE WORLD gives you the latest DX-news.
The first and third Friday of the month at 16.00–17.00 G.M.T.

MUSICAL MAILBAG, listeners' request programme.
All other Fridays at 16.00–17.00 G.M.T.

15185 kc/s – 19.76 m. 11805 kc/s – 25.41 m.
9555 kc/s – 31.40 m.

For more details see page 85

RADIO

THE FINNISH BROADCASTING CO., LTD.

PLUS DE 100 ÉMETTEURS THOMSON CFTH HOUSTON SONT EQUIPÈS DE VAPOTRONS

EN FRANCE

Nom des Stations	Modulation d'amplitude	Modulation de Fréquence	Télévision
Amiens (Bouvigny)	–	16/18 kW (×3)	20 kW (×2) / 50 kW b IV
Brest (Roc Tredudon)	–	–	10 kW
Brest (Quimerch)	25/30 kW OM (×2)	–	–
Caen (Mont-Pinçon)		16/18 kW (×3)	–
Grenoble (Ville)	20 kW OM	–	–
Issoudun	100 kW OC (×8)		–
Le Mans (Mayet)	–	–	10 kW
Lyon (Tramoyes)	20 kW OM	–	–
Lyon Fourvières	–	–	2 kW b IV
Marseille (Camargue)	600 kW OM (2×300)	–	–

Nom des Stations	Modulation d'amplitude	Modulation de Fréquence	Télévision
Marseille (Realtort)	135 kW OM	–	–
Metz (Luttange)	–	3×16/18 kW	–
Nancy (Nomeny)	100 kW OM (×2)	–	–
Paris (Tour Eiffel)	–	4×16/18 kW	10 kW b IV
Paris (Villebon)	100 kW OM	–	–
Pic du Midi (2.780 m)	–	–	20 kW
Puy-de-Dome (1 465m)	–	–	10 kW
Reims (Hauvillers)	–		20 kW
Rennes (St-Pern)		–	10 kW
Rouen (Les Essarts)	–	–	10 kW
Strasbourg (Sélestat)	100 kW OM (×3)	–	–
Ste-Assise (P. et T.)	6×60 kW OC à B.L.I. (trafic intercontinental)		

HORS DE FRANCE

Nom des Stations	Ondes	Puissance inst par CFTH (kW)	Type CFTH
Abidjan (Rép. de la Côte d'Ivoire)	O C.	100	TH. R. 875
Abidjan (Rép. de la Côte d'Ivoire)	O.C.	25/30	TH. R. 835
A.C.F.L. – New York (USA)	O.C.	50×6	TH. R. 775
Alger – Oued-Fayet (Algérie)	O.C.	50×4	TH. R. 775
Alger – Créa (Algéric)	T.V.	20	TH. T. 970
Andorradio (Andorra)	O.M.	100 et 300	TH. R. 755
Bamako (République du Mali)	O.C.	50	TH. R. 775
Brazzaville (Rép. du Congo)	O.C.	25/30	TH. R. 1308
Brazzaville (Rép. du Congo)	O.C.	50×2	TH. R. 775
Constantine (Algérie)	O.M.	25/30/×2	TH. R. 1392
Dakar-Rufisque (Rép. Sénégal)	O.M.	200	TH. R. 856
Felsberg « Europe N° 1 »	O.L.	400 (2×200)	TH. R. 855
Felsberg « Europe N° 1 »	O.L.	600 (2×300)	TH. R. 955
Heusweiller (Allemagne)	O.M.	100	TH. R. 755
Khartoum (Rép. du Soudan)	O.M.	100	TH. R. 755
Léopoldville (Rép. Congo ex Belge)	O.C.	50	TH. R. 755
Léopoldville (Rép. Congo ex Belge)	O.C.	100	TH. R. 875
Ljubljana (Yougoslavie)	O.M.	135	TH. R. 721
Martinique (Lelamantin)	O.M.	50/60	TH. R. 776

Nom des Stations	Ondes	Puissance inst. par CFTH (kW)	Type CFTH
Meknès – Sebaa-Aioun (Maroc)	O.M.	140×2	TH. R. 721
Meknès – Sebaa-Aioun (Maroc)	O.M.	25/30×3	TH. R. 1392
Meknès – Sebaa-Aioun (Maroc)	O.C.	50	TH. R. 775
Monte-Carlo (Monaco)	O.M.	200×2	TH. R. 856
Monte-Carlo (Monaco)	O.M.	600 (2×300)	TH. R. 956
Monte-Carlo (Monaco)	O.C.	100	TH. R. 875
Motala (Suède)	O.L.	600 (2×300)	TH. R. 955
Oran Tessala (Algérie)	T.V.	20	TH T. 970
Oran les Trembles (Algérie)	O.M.	25/30×4	TH. R. 1392
Ousumbura (Ruanda-Urundi)	O.C.	50	TH. R. 775
Pristina (Yougoslavie)	O.M.	100	TH. R. 755
Saigon (Viet-Nam)	O.M.	50	TH. R. 776
Saigon (Viet-Nam)	O.C.	50	TH. R. 775
Sarajevo (Yougoslavie)	O.M.	100	TH. R. 755
Tananarive (Madagascar)	O.C.	100	TH. R. 875
Tel-Aviv (Israël)	O.M.	100×4	TH. R. 755
Tel-Aviv (Israël)	O.C.	100	TH. R. 875
Titograd (Yougoslavie)	O.M.	100	TH. R. 755
Tunis (Tunisie)	O.M.	600 (2×300)	TH. R. 956
Zagreb (Yougoslavie)	O.M.	135	TH. R. 721

COMPAGNIE FRANÇAISE THOMSON-HOUSTON - GROUPE ÉLECTRONIQUE

173 Boulevard Haussmann, Paris (8) - Tel. ELY 83.70

DIVISION RADIODIFFUSION-TÉLÉVISION-TÉLÉCOMMUNICATIONS, 16 rue du Fossé-Blanc, Gennevilliers

Hugo, Limoges – 20 Quai Gailleton, Lyon 2, allée Ray Grassi (Parc Chanot), Marseille – 6, Avenue Hippolyte Maringer, Nancy – 9, Avenue Janvier, Rennes – Place de Bordeaux, Strasbourg – 78, allées Jean Jaurés, Toulouse.

L.P: Dir. Gen: R. Bordaz. Dir. Gen. Adjoint: J-B. Dupont. Prés. du Conseil Supérieur: P. Descaves. Chef du Dépt. des Affaires Générales et des Relations Publiques: C. Bonami. Chef des Services de la Recherche et de la Formation Professionnelle: P. Schaeffer. Secr. Gén. des Conseils et Comités de Prgr's: G-E. Clancier. Délégué du Dir. Gén. aux stations régionales: R. Dhordain. Chef du Service de l'Inspection Gén: M. Lenoble. Dir. des Services Techniques p.i: C. Mercier. Dir. de l'Adm. Gén: P. Mauget. Dir. des Prgr's de Radiodiff: P. de Boisdeffre. Dir-Adjoint des Prgr's de Radiodiff: G. Drouet. Dir. des Prgr's de TV: A. Ollivier. Dir-Adjoint des Prgr's de TV: J. Chauveau. Dir. des Relations Extérieures: J. Flaud. Dir. Adjoint des Relations Extérieures et Chef du Dépt. des Prgr's Internationaux de Radiodiff: M. Robida. Chef du Service des Prgr's Internationaux de TV: G. Croses. Chargé du Service des Emissions vers l'Extérieur: J. Delannoy. Dir. des Services Extérieurs d'Exploitation: C. Mercier.

HOME SERVICE

PARIS INTER and INTER JEUNESSE

	kc	m	kW		kc	m	kW
Allouis	164	1829	250/ 500*	Brest	1493	201	0.05
				Marseille III	1493	201	1
Paris III	584	514	4	Strasbourg III	1493	201	1
Grenoble	1484	202	0.05	Toulouse III	1493	201	1
Montpellier II	1484	202	1	Nice I	1554	193	60
Perpignan	1484	202	1	Nimes I	1594	188	1
Ajaccio	1493	201	1	Toulon	1594	188	0.05
				Allouis	6175	48.58	100

* 500kW d 05.15–23.00.

FM: * 2kW, others 12kW.

Station	Mc		Mc		Mc
Toulouse*	87.9	Dijon*	93.7	Troyes	97.9
Carcassonne	88.3	Paris	93.35	Bordeaux*	98.1
Bourges	88.5	Rennes	93.55	Clermont Fd*	98.4
Le Mans	89.0	Gex*	94.4	Nantes	98.9
Limoges	89.5	Lille	94.7	Niort	99.4
Besancon*	90.0	Mulhouse	95.7	Caen	99.6
Vannes*	91.8	Pic de L'ours*	96.3	Lyon	99.8
Aurillac*	91.9	Rouen	96.5	Metz	99.8
Marseille	91.27	Brest	97.8		

D.PRGR: On 164kc: 24 h exc. Fri 03.18–04.13. Other tr. 05.00–19.30: RTF-Inter Prgr. 19.30–23.00: Inter-Jeunesse Prgr. 23.00–05.00 (164kc only): Inter Actualites, Route de Nuit.
N: 23.01, 24.00, and every h on the h to 22.00.

RTF INTER and INTER-VARIETES

	kc	m	kW		kc	m	kW
Lyon I	602	498	100	Nice II	1403	214	20
Marseille I	674	445	150	Rouen	1403	214	20
Rennes I	710	422	150	Pau	1403	214	20
Limoges I	791	379	100	Bayonne I	1493	201	4
Nancy I	836	359	150	Nantes II	1493	201	0.05
Toulouse I	944	318	100	Amiens	1484	202	0.05
Paris II	1070	280	100	Caen	1484	202	0.05
Strasbourg I	1160	259	150	Colmar	1484	202	0.05
Bordeaux I	1205	249	100	Dijon	1484	202	1
Lille I	1376	218	150	Poitiers	1484	202	1
Brest II	1403	214	20	Lorient	1493	201	0.05
Clermont Ferrand	1403	214	20	Reims	1493	201	0.05
				Metz	1594	188	0.05
Montpellier I	1403	214	10	Mulhouse	1594	188	0.05

D.PRGR: 05.00–19.30(Sun 14.00, Thurs 13.03). Inter Prgr, 19.30(Sun 14.00, Thurs 13.03)–23.00 Inter Varietes.

RTF PROMOTION

	kc	m	kW		kc	m	kW
Bayonne II	539	557	0.05	Strasbourg II	1277	235	100
Paris I	863	348	150	Bordeaux II	1349	222	20
Brest I	1241	242	20	Grenoble I	1349	222	20
Lille II	1241	242	20	Limoges II	1349	222	20
Lyon II	1241	242	20	Nantes I	1349	222	10
Marseille II	1241	242	20	Toulouse II	1349	222	20
Nancy II	1241	242	20	Saint-Brieuc	1493	201	0.05
Nice III	1241	242	20	Besançon	1493	201	0.18
Rennes II	1241	242	24				

FM: *2kW, others 12kW.

Station	Mc		Mc		Mc
Toulouse*	87.9	Clermont-Ferrand*	90.4	Besancon*	97.7
Pic-de-L'ours				Reims	98.85
St. Raphael*	88.7	Limoges	93	Marseille	99
Lyon	88.8	Bourges	94.9	Dijon*	99.2
Gex*	89.6	Paris	97.6	Caen	99.6

D.PRGR: 05.00–23.00. **N:** 06.30, 11.30, 22.53 – **"Ici New York":** Mo–Fri 18.01 – **Arabic:** 05.00–05.58.
PRGR. "HAUTE-FIDELITE" *2kW, **0.25kW, others 12kW.

Station	Mc		Mc		Mc
Lille	88.7	Toulouse*	91.5	Aurillac*	94.5
Reims	89.2	Mulhouse*	91.6	Strasburg*	95.0
Metz	89.7	Grenoble*	91.8	Clermont Fd.*	95.5
Rennes	89.9	Bourges	91.8	Caen	95.6
Mezieres*	90.1	Rouen	92.0	Dijon*	95.9
Toulouse**	90.3	Lyon	92.4	Vannes*	96
Nantes	90.6	Le Mans	92.6	Gex*	96.7
Carcassonne	90.9	Besancon*	92.9	Nancy**	96.9
Paris	90.35	Brest	93.0	Toulon*	97.1
Niort	91.1	Bordeaux*	93.5	Limoges	97.5
Troyes	91.4	Marseille	94.2	Pic-de-L'ours*	99.6

D: 07.00–23.00. N: 07.00, 12.00, 15.57, 19.20.

SPECIAL BROADCASTS:
Paris IV (Romainville) 962kc 312.0m 10kW.
Lille Academie FM 98Mc 12kW cultural and school prgr.
AKG, Austria: delivered studio equip. (recorders, microphones).
ANN: For RTF Inter, Inter-Varietes, RTF Promotion and "Prgr. Haute-Fidélité at opening and close down "La Marseillaise" followed by "Ici Paris, Radiodiffusion-Télévision-Française".
INT-SIG: RTF Promotion:

RTP Inter: Fanfare by G. Delerue.
RTF Inter-Jeunesse: Ballade by G. Delerue.

FOREIGN SERVICE

Stations: 100kW.

kc	m	kc	m	kc	m	kc	m
944	318.0	7240	41.44	9755	30.76	15245	19.68
1277	235.0	7280	41.21	11845	25.33	17765	16.89
5955	50.38	9560	31.38	11885	25.24	17850	16.81
6145	48.82	9570	31.35	11920	25.17	21580	13.90
6175	48.58	9585	31.30	15160	19.79	21620	13.87
7160	41.90	9620	31.19				

EUROPEAN SERVICE

Bulgarian kc
19.00–19.45 7240, 9755

Czech/Slovak
19.00–20.00 5955

English
06.45–07.00 7160

French
17.00–17.45 6145, 7280, 9620 9755, 11845, 15245

German
18.00–18.45(W) 1277
18.45–19.00*(W) 1277
18.40–19.30(Sun) 1277

Greek
12.15–12.45 11920, 15160

Hungarian
18.15–19.00 5955, 9570
* French lesson (W). b) Mass, Sun only.

Polish
10.00–11.00b) 9560
19.00–20.00 6145, 7160, 9570

Portuguese
07.00–07.15 7160
19.00–19.30 7280, 9620
19.30–19.45* 7280, 9620

Rumanian
18.15–19.00 7280, 9585

Russian
16.00–17.00 7280, 9620, 11885, 15160

Serbo-Croatian
18.15–19.00 6145, 7160

Spanish
07.15–07.30* 7160
21.30–21.45 5955, 7160
21.45–22.00 5955, 7160
22.00–23.00 944, 5955, 7160

Yiddish
21.15–21.35(W) 9620, 11845

OVERSEAS SERVICE:
I=French Polynesia, New Caledonia, New Hebrides; II=Africa; III=Antarctica; IV=Antilles, Guiana, St. Pierre et Miquelon; V=Far East; VI=Indian Ocean; VII=Middle East; VIII=Canada; IX=Latin America – All prgr's in French exc. where indicated.

Time	Area	kc	Time	Area	kc
06.00–06.45	I	7240, 11885	16.15–16.30	VII	9755, 11845, 15245
07.00–08.00	II	9755, 17765, 21580	17.30–17.45[3]	VIII	15160, 17850
05.45–06.15[1]	III	9755	20.00–20.57	II	9560, 9755, 11885
10.30–11.00	IV	17765, 21580			
12.15–12.45	II	17765, 21580	23.15–02.15[4]	IX	9755, 11845, 11920
13.00–14.00[2]	V	15245, 17765, 21620	23.30–01.00	IV	9560, 11885
15.15–16.13	VI	17765, 21620			

[1] Mo only, [2] English 13.00–13.30, French 13.30–14.00, [3] exc. Sat/Sun, Fri to 17.50, [4] Portuguese 23.15–24.00 (French lesson 23.45), French 00.00–00.30, Spanish 00.30–02.15 (French lesson 00.30).

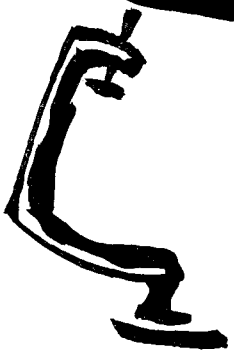
Arabic and Kabyle: a) to Middle East. b) to No. Africa.

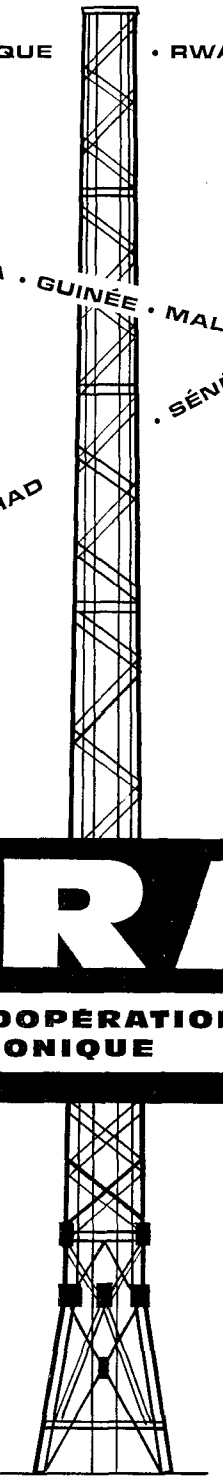
Times	kc	Times	kc
04.00–05.00[1]a	1070, 1277, 7280 9560, 11845	08.00–11.00[2]b	7280, 9585, 11920, 15130
05.00–06.00[1]a	1070	11.00–12.00[2]b	7280, 9585, 15130
06.00–08.00[1]b	7280, 9585, 11920, 15130*	12.00–13.00[1]b	962, 7280, 15130
06.45–07.00(Sun)	962	12.00–13.00[2]b	6145, 9585

. CAMEROUN YAOUNDÉ DOUALA GAROUA BUEA • CENTRAFRIQUE • RWANDA •
• CONGO • COTE D'IVOIRE • DAHOMEY • GABON • HAUTE-VOLTA • GUINÉE • MALI •
• SÉNÉGAL •
• MAURITANIE • MADAGASCAR • NIGER • TCHAD

OCORA

OFFICE DE COOPÉRATION RADIOPHONIQUE





6 RUE D'AMSTERDAM - PARIS 9e - PIG 99-39

ociété d'État de la République Française chargée d'apporter son assistance tech-
ique aux États Africains et Malgache dans le domaine de la radiodiffusion sonore
t visuelle.

Times	kc	Times	kc
13.00–16.00[1]b	6145, 7280, 9585 11920, 15130	21.00–23.00[1]b	7280, 9585, 11920
16.00–18.00[1]a	9585, 11920, 15130	21.10–21.58(W)	584, 1484, 1493, 1594
19.00–20.00[1]b	9585	22.00–23.00	674
20.00–21.00[1]b	7280, 9585, 11920		

[1] Arabic. [2] Kabyle. *=from 07.00.

RELAYS OF FRENCH HOME SERVICES

d) to Europe & Africa; e) Africa; f) Europe; g) Canada; h) Africa, Middle East.

Times	Areas	kc	Programme
05.14–23.00	d	6175	RTF Inter/Jeunesse
07.00–07.15	e	11845, 21620	RTF Inter*
09.00–10.00 (Sun)	f	7160	RTF Promotion**
11.00–15.03	e	11845	RTF Inter
13.50–17.00 (Sun)	e	21580	RTF Inter***
19.00–19.30	g, h	11845, 15130, 15160	RTF Inter*

* News (Journal Parlé). ** Catholic Mass. *** Sport & Music.

ANN: "Allo... (name of area) Paris vous parle" – V. by QSL-card.

O.C.O.R.A. (Office de Coopération Radiophonique).

an organisation the purpose of which is improvement and development of Broadc. and Television in "les Etats Independants d'Afrique d'expression Française".

ADDR: 46, rue d'Amsterdam, Paris 9é. **Cable**: O.C.O.R.A. **Te**: PIGallé 99-39 – **L.P**: Pres of the Board of Adm: M. Bordaz. Dir. Gen: M. R. Pontillon. Secr. Gen: M. J. Lansier.

STATIONS: R. Sénégal (Darkar-Ziguinchor), R. Mauritania (Nouakchott), R. Mali (Bamako-Mopti), R. Niger (Niamey), R. Cote d'Ivoire (Abidjan), R. Dahomey (Cotonou), Radiodiff. de la République du Togo (Lomé), R. Haute Volta (Ouagadougou), R. Gabon (Libreville), R. Tchad (Fort Lamy), R. Bangui (Bangui), Radiodiff. de Cameroun (Yaoundé, Douala, Garoua), R.diff. Malgache (Tananarive), R. Congo (Brazzaville).

AKG, Austria, delivered studio equip. (recorders, microphones).

AMERICAN FORCES NETWORK EUROPE

ADDR: & **L.P**: See Germany – **STATIONS**: Bel Manoir 98.4, Bordeaux 92.5, Braconne 89.2, Brienne-le-Chateau 94.2, Bussac 96.9, Captieux 92.8, Chalons S/Marne 96.3, Chambley 95.2, Chateauroux 90.8, Chaumont 97.4, Chinon 93.4, Croix Chapeau 93.8, Dreux 99.05, Etain 99.0, Evreux 88.4, Fontainebleau 98.1, Fontenet 95.4, Ingrandes 99.2, Laon 88.4, Metz 87.8, *Orleans 90.3, Orly 99.9, Phalsbourg 91.7, *Poitiers 97.2, St. Nazaire 99.8, Saumur 87.7, Toul Rosieres 93.35, Trois Fontaines 94.0, *Verdun 92.2, Vitry-le Francois 93.25Mc (*= Studios) – All st's: 0.05kW.

D.PRGR: 05.00(Sun 06.00)–00.05 – See Germany.

GERMANY

GERMAN FEDERAL REPUBLIC

L.T: *GMT+1 h* – **Pr.L**: *German.*

ARBEITSGEMEINSCHAFT DER ÖFFENTLICH-RECHTLICHEN RUNDFUNKANSTALTEN DER BUNDESREPUBLIK DEUTSCHLAND (ARD)

Broadcasting:

Administration for Broadc. and Television: Intendant D. Klaus v. Bismarck, Westdeutscher Rundfunk, Köln, Wallrafplatz 5 – **Members**: Bayerischer, Hessischer, Norddeutscher, Saarländischer, Süddeutscher und Westdeutscher Rundfunk, Radio Bremen, Sender Freies Berlin, Südwestfunk, Deutschlandfunk, Köln, Deutsche Welle, Köln. And as guest-partaker at meetings: RIAS Berlin.

Fernseh Koordinationsbüro: Staatssekretär a.D. Dr. K. Mohr, Referent für Eurovision: H. v. Plato, München 23, Leopoldstr. 10.

Fernsehbeirat: Chmn. H. Müller, Sösepromenade 18, Osterode/Harz – **Institut für Rundfunktechnik**: Floriansmühlstr. 60, München–Freimann.

Television: Arbeitsgemeinschaft der Öffentlich-Rechtlichen Rundfunkanstalten der Bundesrepublik (ARD): See Sound Broadcasting.

DEUTSCHLANDFUNK (Gemeinnützige Anstalt des öffentlichen Rechts).

Purpose: Veranstaltung von Rundfunksendungen für Deutschland und das europäische Ausland, die ein umfassendes Bild Deutschlands vermitteln.

ADDR: Köln-Marienburg, Lindenalle 7, **Te**: 380161.

L.P: Intendant: Dr. H. F. G. Starke. Dir. Aktuelles Programm: J. Viehöver. Dir. Kulturelles Programm. Dr. J. Petersen. Verwaltungsdir. & Justitiar: Freiherr von Sell. Sendeleiter: E. Imelmann. Chief Eng: O. Scheffler.

STATIONS	kc	m	kW		kc	m	kW
Mainflingen	151	1986.8	50	Ravensburg	755	397	20
Königslutter	755	397	200	Mainflingen	1538	195	300

Telefunken AG, Germany, delivered Studio equip (recorders).

HOME SCE. in German: 03.58–00.10.

N: Every h on the h 04.00–17.00 and 04.30, 05.30, 18.30, 20.30, 22.00, 23.00, 24.00.

"Deutschland Echo": W 18.00. **"Die Woche in Deutschland"**: Sat 18.45.

Advertisement

telecommunication journal

In the increasingly international age in which we live, it is more important than ever that everyone connected with radio should be in touch with authoritative world opinion on radio matters.

The Telecommunication Journal, the official organ of the International Telecommunication Union (ITU), serves just this purpose. Since 1869 (when it first appeared as the "Journal Télégraphique") it has faithfully covered all aspects of telecommunications which come within the purview of the world organization (now a UN specialized agency) set up in 1865 to regulate them.

The Journal has recently been completely revised and modernized.

It contains

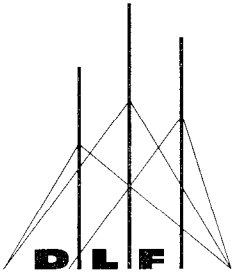
- a news section covering the activities of the ITU, of its Member Administrations and of private operating companies and highlighting technical advances in radio throughout the world –
- articles by world experts, with a heavy emphasis recently on the latest developments in space communications-
- a monthly "Telepersonality" featuring an outstanding personality from the telecommunication world –
- a comprehensive list of articles of telecommunication interest appearing in the scientific press throughout the world –
- official ITU information, including lists of forthcoming ITU Conferences and other international telecommunication meetings –
- monthly sunspot predictions.

It is published monthly by the ITU in separate English, French and Spanish editions.

It costs 2 Swiss francs a copy. The annual subscription is 20 francs for one language edition, 30 francs for two and 40 francs for three.

For further information, write to: Telecommunication Journal, ITU, Place des Nations, Geneva, Switzerland.

AUTHORITATIVE • READABLE • COMPREHENSIVE



DEUTSCHLANDFUNK

GEMEINNÜTZIGE ANSTALT DES ÖFFENTLICHEN RECHTS

Cologne-Marienburg, Lindenallee 7, Telephone 38 01 61

Medium Wave	**1538 kc/s**	**195,0 m**	**300 kW**
Medium Wave	**755 kc/s**	**397,0 m**	**20 kW**
Medium Wave	**548 kc/s**	**547,0 m**	**200 kW**
Long Wave	**151 kc/s**	**1986,8 m**	**50 kW**

PROGRAMME SCHEDULE

GMT	
03.58	Chorale
04.00	News
04.05	Comments
04.10	Music
04.30	News
04.35	Music
05.00	News
05.05	Comments
05.10	Service
05.15	Music
05.30	News
05.35	Music
06.00	News
06.05	News Review
06.15	Music
07.00	News
07.10	Music
08.00	News
08.05	News Review
08.15	Music
09.00	News
09.05	Announcement of programmes
09.10	Education

GMT	
09.30	Music
10.00	News
10.05	Music
10.30	Literary Word
11.00	News
11.05	Country Broadcast
11.15	Music
12.00	News
12.10	Announcement of programmes
12.15	Music
13.00	News
13.05	Music
14.00	News
14.05	Cultural Word
15.00	News
15.10	Music
16.00	News
16.05	Announcement of programmes
16.10	Music
16.30	Education
16.50	Financial broadcast

17.00	News
17.05	International news review
17.15	Music
18.00	Reports from Germany
18.30	News
18.45	Political comments
19.00	Evening programme
20.30	News
20.40	a) Foreign report, respectively b) serial
21.00	a) Music, respectively b) Cultural Word
21.30	Music
22.00	News
22.05	Announcement of programmes
22.10	Music
23.00	News
23.05	Music
00.00	News
00.05	End of the day
00.10	Close of broadcast

In foreign languages on 1538 kc / 195 m:

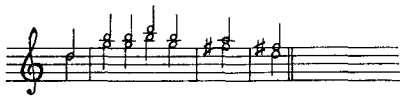
20.00–20.30	Polish	21.30–22.00	Roumanian
20.30–21.00	Czechoslovakian	22.00–22.30	Hungarian
21.00–21.30	Serbian–Croatian	22.30–23.00	French

Saturdays, Sundays, and Holidays also:

Service, church, morning ceremony, political reports, interviews, sport broadcasts.

Germany

"Themen des Tages": Mo-Fri 18.45. **"Prisma der Welt"**: Mo, Wed, Fri 20.40. **"Wirtschaftsfunk"**: Mo-Fri 16.50.
Further details see advertisement on page 91.
FOREIGN SCE. on 1538kc: W 20.00–23.00.
20.00 Polish, 20.30 Czech, 21.00 Serbian/Croatian, 21.30 Roumanian, 22.00 Hungarian, 22.30 French.
ANN: "Hier ist der Deutschlandfunk" – **INT-SIG**: "Du Land voll Lieb' und Leben" from the folksong "Ich hab' mich ergeben" (played on Celeste).



DEUTSCHE WELLE (Anstalt des öffentlichen Rechts)

ADDR: Bruederstr. 1, Postfach 344, Köln. **Te**: 20301 – **Telex**: 08/88 1942 – **L.P**: Intendant: Dr. Hans Otto Wesemann. Dir. Adm: Dr. Heinz Fellhauer. Dir. Tec: Guenter Roessler. DX-Editor: G. G. Thiele.
STATIONS: Jülich-DMQ, 7 tr. 100kW – Kigali/Rwanda rel. tr. 0.6kW (later increased to 100kW) – Rebroadc. all transmissions to Africa on 7225 and 7260kc.

kc	m	kc	m	kc	m	kc	m
5955	50.38	7235	41.47	9735	30.82	15275	19.64
5980	50.17	7290	41.15	11715	25.61	15280	19.63
6015	49.88	9520	31.51	11785	26.46	15405	19.47
6100	49.18	9545	31.43	11795	25.43	15410	19.47
6145	48.82	9575	31.33	11925	25.16	17815	16.84
6160	48.70	9605	31.23	11930	25.15	17845	16.81
6175	48.58	9640	31.12	11945	25.12	17870	16.79
7205	41.64	9685	30.98	15205	19.73	21650	13.86

Telefunken AG, Germany delivered 3 100kW sw-tr's, studio equip (recorders).

OVERSEAS SERVICE

Abbreviations: I=Ea.Asia, Australia, New Zealand; II=Japan; III=So.Asia; IV=No. and M.Ea; V=Africa; VI=So.America; VII=No. America (East); VIII=C.America; IX=No.America (West); X=East Europe.

GERMAN PROGRAMME:

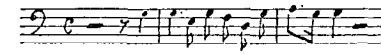
H of tr.	Area	Nov/Feb. kc	N.	March/April m.b.	May-Oct. m.b.
06.45–09.45	I	9735/11795 15205	06.45, 09.35	31, 25, 16	31, 25, 19
09.45–12.45	II	9735/11795	09.45, 12.35	25, 19	25, 19
12.50–15.50	III	11930/15405	12.50, 15.40	16, 13	16, 19
16.00–19.00	IV	7290/9685	16.00, 18.50	25, 19	25, 19
17.15–20.15	V	9735/11785	17.15, 20.05	25, 19	25, 19
19.05–22.05	V	9605/11925	19.05, 21.55	31, 25	31, 25
22.30–01.30	VI	6145/9575/ 9735	22.30, 01.20	31, 25	31, 25
00.00–03.00	VII	5955/6100/ 9545	00.00, 02.50	49, 31, 25	49, 31
01.45–04.45	VIII	6145/9605	01.45, 04.35	49, 31	49, 31
03.00–06.00	IX	5955/6100/ 9640	03.00, 05.50	49, 31	49, 31

Comm: After the first N – **"Wie wir leben"**: Wed – **"Unter uns gesagt"**: Wed – **Folklore Music**: Tues, Sat – **DX-Programme** (German, English) every 2nd Mo and Tues of the month at 08.00, 11.00, 14.05, 17.15, 18.30, 20.20, 23.45, 01.15, 03.00, 04.15 – **"Technische Hinweise"** (*Technical Hints in German*): every 4th Mo, Tues of a month, times as for DX-Prgr.

FOREIGN LANGUAGE PROGRAMME:

H of tr.	Area	kc	L.	N.	March/April m.b.	May-Aug. m.b.
01.35–02.15	VII	6175/9640	English	01.37	49, 31	49, 31
02.15–02.55	VII	6175/9640	French	02.17	49, 31	49, 31
04.55–05.35	IX	6145/9575/ 9735	English	04.57	49, 31, 25	49, 31, 25
05.40–06.40	VI/ VIII	6145/9735	Spanish	05.42	49, 31	31, 25
06.05–06.35	V	9685/11785	English	06.07	19, 16	19, 16
06.35–06.45	V	9685/11785	Swahili	06.37	19, 16	19, 16
06.45–07.25	V	9685/11785	French	06.47	19, 16	19, 16
06.10–06.40	IV	7290/9575	Turkish	06.12	31, 25	31, 25
07.30–08.40	III	11945/15275 /17845	English	07.32 08.02	19, 16, 13	19, 16, 13
08.45–09.40	I	11925/15410 /17845	English	08.47	19, 16, 13	25, 19, 16
09.50–10.50	IV	17845/21650	Persian	09.52	16, 13	19, 16
09.55–10.55	V	15280/17870	Swahili	09.57	19, 16	19, 16
11.00–12.00	IV/V	15275/17845	Arabic	11.02	16, 13	19, 16
11.05–12.05	X	6145/7205	Czech/ Slovak	11.07	49, 31	49, 31
12.10–12.40	X	9545/11930	Rumanian	12.12	31, 25	31, 25
12.20–13.20	X	9685/11715	Bulgarian	12.22	25, 19	31, 25
12.45–13.25	I	11795/15205	English	12.47	19, 16	19, 16
13.30–14.30	X	5955/7235	Polish	13.32	49, 41	41, 31
13.30–14.30	X	6160/7205	Hungarian	13.32	49, 31	49, 31
14.35–15.05	X	9735/11795	Russian	14.37	25, 19	31, 25
14.40–15.40	X	6160/7235	Serbo/ Croat*	14.42	49, 31	49, 31
15.10–15.50	IX	9735/11795	English	15.12	25, 19	31, 25
15.50–16.20	III	7235/9735	English	15.52	19, 16	19, 16
15.55–16.15	V	15275/17815	Swahili	15.57	19, 16	19, 16
16.15–17.10	V	15275/17815	English	16.17	19, 16	19, 16
16.25–17.20	IV	7235/9520	Persian	16.27	19, 16	19, 16
17.25–17.55	IV	5955/9520	Turkish	17.27	25, 19	25, 19
18.00–19.00	X	6015/7235	Russian	18.02	41, 31	31, 25
19.10–20.10	IV	5980/7290	Arabic	19.12	31, 25	31, 25
20.20–20.50	V	7290/9735	English	20.22	25, 19	31, 25
20.50–21.50	V	7290/9735	French	20.52	25, 19	31, 25
21.10–22.00	I	5980/7235	English	21.12	41, 31	41, 31
22.10–23.00	VI	5980/9545/ 11795	Portuguese	22.12	49, 25, 19	49, 25, 19
23.00–23.50	VI/ VIII	5980/9545/ 11795	Spanish	23.02	49, 25, 19	49, 25, 19

* 15.20–15.40 Tues, Thurs: Slovenian.
ANN: G: "Hier ist die Deutsche Welle". E: "This is R. Deutsche Welle, the Voice of Germany". F: "Ici la Voix de l'Allemagne". Sp: "Habla la Voz de Alemania". P: "Esta é a Voz de Alemanha".
INT-SIG: Motif from "Fidelio" by Beethoven: "Es sucht der Bruder seine Brüder" played on Celeste.



V. by QSL-card (10 min. prgr. details required). Records accepted - **PUB**: Monthly Prgr.sched. free.

DER BAYERISCHE RUNDFUNK (Anstalt des öffentlichen Rechts)

AD: W: 05.30–06.00, 08.55–09.35, Mo–Fri also 12.45–13.00. Tues, Wed, Thurs: 18.40–18.45 – **ADDR**: München 2, Rundfunkplatz 1. **Cable**: Bayernfunk München. **Te**: *59001* – **L.P**: Intendant: Chr. Wallenreiter. Prgr-Coordinator: W. von Cube. Adm: H. Spies. Dir. Tec: Dr. F. Daser.

HOME SERVICE

FIRST PRGR. on all frequencies: W 04.30(Sat, Sun 05.00)–24.00 (exc. 08.55–09.35 m.w. only). * night only. [1] Passau. [2] Augsburg, Landshut.

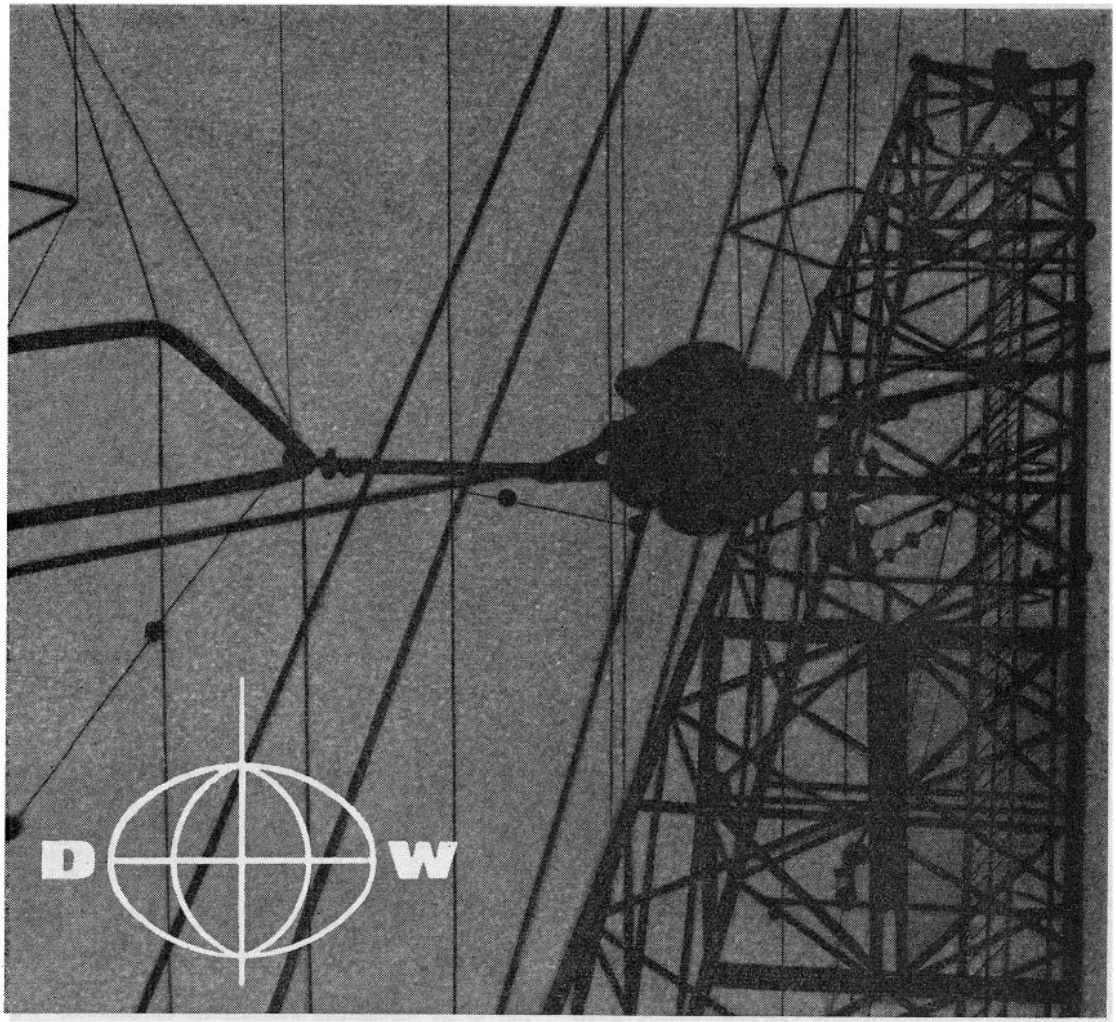
M.waves:	kc	m	kW		kc	m	kW
Bayreuth	520	577	0.2	Hof	1602	187	1
Kempten	520	577	0.2	Land./Isar	1602	187	20*
Würzburg	520	577	0.2	Kirchheim	1602	187	20*
low power[1]	520	577	0.2*	Coburg	1602	187	1
München	800	375	100	Regensburg	1602	187	1*
2 low power[2]	1484	202	1.0*				
Nürnberg I	1602	187	20 day, 40 night.				

Short Wave: München-Ismaning 6085kc 49.30m 10kW.

FM:	ch	Mc	kW		ch	Mc	kW
Berchtesgaden	3	87.8	0.3	Wendelstein I	22	93.7	100
Lindau I	4	88.1	0.4	Bamberg I	26	94.8	6
Herzogstand I	4	88.1	0.1	Aschaffenburg I	29	95.6	17
Dillberg I	6	88.9	12	Ochsenkopf/ Fichtelgeb. I	30	96.0	50
München I	14	91.3	3				
Hühn. b. Hb.	16	91.9	6	Hoher Bogen	33	96.8	30
Bad Reichenh.	19	92.8	0.3	Traunstein Hb.	37	98.0	2
				Kreuzb./Rhön I	38	98.3	10

Telefunken AG, Germany, delivered four 20kW mw-tr's (Ismaning, Schwaben, Landau, Kirchheim), one 5kW tr (Nürnberg); FM-tr's: Landshut (0.1kW), Passau (0.25kW), Coburg (1kW), Würzburg (1kW), Hoher Bogen (3kW), Lindau (0.25kW), Hohe Linie (3kW), Hohenpeissenberg (3kW), Brotjacklriegel (10kW), Hühnerberg (2kW), Büttelberg (2kW), Lindau (0.3kW), studio equip. (recorders).
Kathrein Antennen, Germany, delivered FM-antennas.
N, Wrp: 05.00(W), 06.00, 07.00, 08.00(W), 12.00, 16.00(W), 18.00, 22.00, 23.00 – **"Chronik des Tages"**: W 17.00.
Night Prgr: D 00.00–04.20 on 520kc (Bayreuth, Kempten, Würzburg), 1602kc (Nürnberg, Kirchheim, Hof, Coburg) and on all FM st's exc. 96.0 Mc. – **N**: 00.00, 01.00, 02.00, 03.00, 04.00 – **Request Prgr**: Sun 13.30 (fortnightly), Wed 19.15 – **T.S**: 11.00, 17.00, 23.00 –**N. in English, French, German**: 08.00. **Italian**: Sat 08.05–08.35 (for Italian Workers in Germany).
SECOND PRGR: Mo–Fri: 04.30–08.50, 09.30–24.00. Sat, Sun: 05.00–24.00 – **Relay First Prgr**: 04.30–05.05, 06.00–07.15, Mo–Fri: 11.05–12.00, Wed, Fri, Sat: 23.00–24.00, Sun: 05.00–06.05, 23.00–24.00.

	ch	Mc	kW		ch	Mc	kW
Gelbelsee	2	87.6	10	Hohenpeissenb.	10	89.9	8
Tegernseer Tal	2	87.7	0.3	Landshut	11	90.2	0.1
Augsburg	3	87.9	0.75	Ochsenkopf/ Fichtelgeb.II	12	90.7	50
Büttelb./Frankh.	4	88.2	7				
Coburg	4	88.3	2	Brotjacklriegel	17	92.1	100



DEUTSCHE WELLE

Daily information and entertainment in 19 languages:

German · English · French · Spanish Portuguese · Arabic · Persian · Turkish · Swahili · Indonesian · Russian Polish · Hungarian · Serbo/Croat Slovenian · Czech · Slovak · Bulgarian · Roumanian

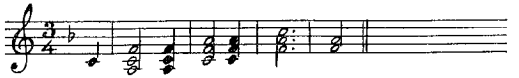
Programmes in Hindi and Urdu are being prepared

DEUTSCHE WELLE

5 Cologne · Brüderstr. 1 · P.O.B. 344
Federal Republic of Germany

	ch	Mc	kW		ch	Mc	kW
München II	5	88.4	3	Lindau	17	92.9	0.4
Grünten/Allgäu	6	88.7	100	Dillberg II	18	92.3	12
Würzburg	7	89.0	2	Hohe Linie	20	93.0	8
Garm.-Partenk.	7	89.2	0.5	Kreuzb./Röhn II	20	93.1	100
Wendelstein II	8	89.5	100	Passau	21	93.2	0.3
Bamberg II	9	89.6	6	Hoher Bogen II	25	94.4	2
Aschaffenb. II	9	89.75	6	Herzogstand II	33	97.0	0.1

N: W: 06.00, 07.00, 11.00, 16.00, 18.00, 20.00, 22.00. Sun: 06.00, 11.05, 19.00, 21.00, 23.00.
ANN: "Hier ist der Bayerische Rundfunk". E: "This is der Bayerische Rundfunk" – V. by QSL-card or letter. Prgr.sched. on request.
INT-SIG:



PUB: "Pressedienst" (weekly).

RADIO BREMEN (Anstalt des öffentlichen Rechts)
AD: Mo–Fri: 07.05–07.30, 12.10–13.00, 17.30–18.00. Sat: 17.30–17.50.
ADDR: Heinrich-Hertz-Str. 13, Bremen. **Cable:** Radio. **Te:** 444041.
L.P: Intendant: H. Kerneck. Dir. Prgr. and TV: H. Abich. Dir. Tec: H. Heyer.
HOME SCE: First Prgr: W: 05.00–23.05. Sun: 06.00–23.05.
Bremen 1358kc 221m 20kW – Bremerhaven 1079kc 278m 2kW – 6190kc 48.47m 10kW.
FM: Bremen I ch23 93.8Mc 100kW – Bremerhaven I ch8 89.5Mc 0.5kW.
Second Prgr: W: 17.00–23.05. Sat: 15.00–23.05. Sun: 09.00–23.05 exc. 12.00–15.00.
Bremen II ch4 88.3Mc 100kW – Bremerhaven II ch17 92.1MHz 5kW.
Telefunken A.G, Germany, delivered 20kW mw-tr. (Bremen), FM tr's: Bremen (0.3 and 3kW), studio equip. (recorders).
N, Wrp, Comm: (1st & 2nd Prgr.) 05.05(W), 05.30(W), 06.00(W), 06.30(W), 07.00, 07.30(W), 12.00, 16.00(exc. Sat & Sun), 16.55, 18.30, 20.30, 21.00, 22.00(exc. Sat), 23.00 – **"Die Zeit im Funk":** W 18.00–18.30 – **Rel:** 05.00, W: 07.35, Sun: 06.00, 09.00, Sat: 17.00 – **L.L.** English: Tues 14.45, Wed: 08.45, 14.30, Thurs: 08.30 (fortnightly), 14.40, Fri 08.40 – **Mbg:** Sun 17.00.
ANN: "Hier ist R. Bremen mit dem ersten, bzw. zweiten Programm".
INT-SIG:

V. by QSL-card. Rp. Re. in E, F or G – **PUB:** Prgr.sched. free on request to Pressestelle, Radio Bremen.

HESSISCHER RUNDFUNK (Anstalt des öffentlichen Rechts)
I = Prgr. I, II = Prgr. II – **AD:** W: 07.15–08.00(I+II), 09.10–09.30(II), 10.10–10.30(I), 11.10–12.00(II), 12.10–13.00(I).
ADDR: 6000 Frankfurt am Main, Bertramstrasse 8. **Cable:** Hessfunk. **Te:** 59051. **Telex:** 04 11127 – **L.P:** Intendant: W. Hess. Personal Adviser: Dr. H. Prescher. Dir. Adm: Dipl. Kaufmann H. Weber. Dir. of Staff: W. Heckroth. Chief Legal Adviser: W. Lehr. Press: R. Weigand. Public Rel: Dr. J. Bengsch. Dir. Prgr. (Radio): Dr. H. Wicht. Dir. Prgr. (TV): H. O. Grünefeldt. Prgr. Management (Radio): Dr. K. Brock. Dir. Tec: Dr. Ing. F. Miseré. Politic & N: Chief Editor O. Herr. Culture: Dr. A. Frisé. Educ: Dr. G. Kadelbach. Music: Dr. H. W. Kulenkampff. Entertainment: W. Jaspert.
STATIONS:
Prgr. I: Frankfurt 593kc 505.8m 100kW d – Meissner 593kc 20kW d.

FM:	ch	Mc	kW		ch	Mc	kW
Biedenkopf	2	87.6	10	Feldberg	8	89.4	10
Würzburg	4	88.2	0.25	Hardberg	19	92.7	0.25
				Meissner	8	89.4	10

Prgr. II: FM.

	ch	Mc	kW		ch	Mc	kW
Hardberg	12	90.6	0.25	Würzburg	35	97.5	0.25
Meissner	28	95.4	10	Biedenkopf	42	99.6	10
				Feldberg	32	96.6	10

Telefunken A.G, Germany, delivered 20kW mw-tr. Frankfurt, FM-tr's: Hoher Meissner (0.8 and 10kW), Feldberg (2×10kW), studio equip (recorders).
HOME SERVICE: Two prgr's day and night exc. W 09.10–10.00(I), when off the a r – The night prgr. at 23.10–05.00 only 593kc (Frankfurt or Meissner) – **N.** every h on the h – **Wrp:** after N – **Comm:** D: 18.10(I), 19.10(II) – **L.L.** English: Sat 08.35(II). Spanish: Sat 08.50(II), 09.05(II) – **For Italian Workers in the Fed. Rep:** "Buon giorno, Collega" Sat 08.05(II) – **Quiz:** Thurs 19.30(I) (fortnightly) London-Frankfurt – **Big Trump (Der grosse Trumpf):** Sat 19.00(I) every six weeks.
ANN: "Hier ist der Hessische Rundfunk" or "Hier ist Frankfurt".
INT-SIG: Electronic music – V. by QSL-card – **PUB:** Prgr.schedule, press releases (half-yearly, yearly and weekly).

NORDDEUTSCHER RUNDFUNK
(Anstalt des öffentlichen Rechts)
FI: By license payments – **ADDR:** Hamburg 13, Rothenbaumchaussee 132/34. **Cable:** Nordfunk. **Te:** 441931. **Studios: Flensburg:** Friedrich-Ebert-Str. 1 – **Oldenburg:** Oldenburg i.O. Jägerstr. 30 – **Berlin:** Berlin-Grünewald, Hubertusallee 26 – **Kiel:** Hamburger Chaussee 349. **L.P:** Intendant: G. Schröder. Finanzdir: G. Schulz. Dir. Tec: Dr. H. Rindfleisch.

HOME SERVICE
FIRST PRGR: D 03.55(Sun 04.58)–00.15(Sat 01.15). **Night Prgr.** on 520kc (Braunschweig), 701kc (Hamburg), 1570kc (Flensburg), 1586kc (Hannover, Oldenburg), Hamburg 92.1Mc, Harz 96Mc: Sun, Mo, Fri 00.15–03.30. Sat 01.15–04.30.

	kc	m	kW		kc	m	kW
Braunschweig	520	577	2	Flensburg	1570	191	10
Norden/Osterl.	701	428	2	Hannover	1586	189	40
Lingen	701	428	2	Kiel	1586	189	5
Göttingen	971	309	5	Oldenburg	1586	189	40
Hamburg	971	309	100	Osnabrück	1586	189	5

S.W's: Norden-Osterloog 3970kc 75.57m 5kW – 6075kc 49.38m 20kW.
FM Stations (relay m.w. prgr. exc. night prgr.)

	ch	Mc	kW		ch	Mc	kW
Götting.	5	88.55	1.2	Oldenb.	14	91.1	70
Bungsb.	10	89.9	4.5	Dannenb.	14	91.2	15
Harz	10	89.9	100	Kiel	14	91.3	1.2
Norden/O.	10	90.05	15	Osnabr.	18	92.4	0.5
Hambg.	11	90.3	80	Lingen	19	92.8	15
Heide	12	90.5	15	Lübeck	20	93.1	60W
Hannov.	13	90.9	3	Flensbg.	21	93.2	15

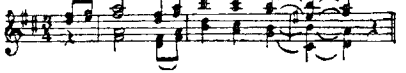
N, Wrp: D: 04.00, 05.00(W), 06.00, 07.00(W), 07.55(Sun 08.00), 12.00, 16.00(exc. Sat), 18.00, 20.45, 23.00, 01.00, 02.00, 03.00 – **Rgl:** Sun 09.00, W 05.50.
SECOND PRGR: Mo–Fri: 05.00–12.30, 14.00–23.05. Sat: 05.00–23.05. Sun: 06.28–23.05.

	ch	Mc	kW		ch	Mc	kW
Flensbg.	9	89.6	15	Dannenb.	31	96.4	15
Lingen	11	90.2	15	Bungsbg.	36	97.8	4.5
Götting.	24	94.1	2	Harz	37	98.0	100
Oldenb.	25	94.4	70	Hannov.	39	98.7	3
Kiel	25	94.5	1.2	Osnabr.	39	98.8	2
Lübeck	29	95.7	0.06	Hambg.	41	99.2	80
Norden/O.	29	95.8	15	Heide	41	99.4	15

N: 06.30(W), 07.00(Sun), 07.30(W), 11.00(W), 18.55, 21.30.
THIRD PRGR. (1/10–31/5 only): D: 18.20 -approx. 21.30. N: 19.00.

	ch	Mc	kW		ch	Mc	kW
Hambg.	2	87.6	80	Hannov.	30	95.9	5
Osnabr.	7	89.2	2	Flensb.	30	96.05	3
Lübeck	13	90.9	0.06	Götting.	30	96.1	1
Bungsb.	16	91.9	4.5	Lingen	36	97.8	0.25
Harz	17	92.1	100	Kiel	38	98.3	1.2
Dannenb.	21	93.3	1	Oldenb.	43	99.8	70

Telefunken A.G, Germany, delivered 20kW sw-tr. (Osterloog); mw-tr's: Hannover (20kW), Kiel (5/2kW), Oldenburg (20/40kW); FM-tr's: Heide (0.25 and 3kW), Osterloog (2×3kW), Hamburg (2×0.3kW, 2×10kW), Hannover (0.25, 1 and 3kW); studio equip. (recorders).
Kathrein Antennen, Germany, delivered FM-antennas.
ANN: 1st Prgr: "Hier ist der Norddeutsche Rundfunk" – **2nd Prgr:** "Hier ist der Norddeutsche Rundfunk auf Ultrakurzwelle" – **3rd Prgr:** "Hier ist das Dritte Programm des Norddeutschen Rundfunk".
INT-SIG: 1st Prgr: Motif from the first movement of Johs. Brahms' Symphony no. 2.



2nd Prgr: "Einen zerlegten Nonen-Akkord" – **3rd Prgr:** The tones "B-A-C-H" in Regerharmonization – V. by QSL-card – **PUB:** "Die Ansage" (weekly), Prgr.sched. (weekly).

EUROPE NO. 1 (Comm.)
ADDR: Europäische Rundfunk und Fernseh AG., Saarbrücken, Dudweilerstrasse 57/59, Saarbrücken. **Te:** 2.41.62 – **L.P:** Mgr: Frédéric Billmann.
For Programmes: Télécompagnie 26 bis, Rue François Ier, Paris 8e. **Cable:** Euradio. **Te:** Balzac 6500. **L.P:** Pres: Sylvian Floirat. Gen. Mgr: Maurice Siegel. – **For advertisements:** Regie No. 1, 28, Rue François Ier Paris 8e. **L.P:** Gen. Mgr: J. Frydmann. – **For Picture and Sound:** Société Images et Son (Holding) Europe 1, 4 Bd. des Moulins, Monte Carlo. **L.P:** Pres.: S. Floirat. Dir. Gen: L. Merlin.
STATION: Felsberg 182kc 1647m 400/1000kW (System CFTH).
Telefunken A.G. Germany, delivered studio equip. (recorders).
A.K.G, Austria, delivered studio equip. (recorders, microphones).
HOME SCE. in French: 05.00(Sun 05.30)–24.00: **N:** W Every h on the h exc. 12.00, 19.00. Also 05.30 Sun: 05.30, 07.00, 09.00, 10.00, 11.00, 13.00, 16.00, 17.00, 21.00, 22.00, 23.00, 24.00.

ANN: F: "Ici Europe No. 1" G: "Hier spricht Europa Nr. 1" E: "This is Europe No. 1" V. by QSL-card. Re. to Europe No. 1, 663 Saarlouis, Postfach 209, Germany.

SAARLÄNDISCHER RUNDFUNK

(Gemeinnützige Anstalt des Öffentlichen Rechts)

AD: W 06.15–07.30, 10.00–11.00, 11.40–12.00, 12.25–12.30, 18.30–19.00. Mo-Fri 17.20–18.00. Sat 16.25–17.00 – **ADDR:** 66 Saarbrücken, Funkhaus Halberg. Postfach 1050. **Cable:** Radio Saarbrücken. **Te:** 6021 – **L.P:** Dir. Adm. Dep. Dir: W. Klein. Programm-Dir. mit der Koordination beauftragt: Dr. W. Zilius. Fernsehbeauftragter: Dr. E. Ringling. Tech. Dir: Dipl-Ing. F. Glasow.

STATIONS: 1421kc 290m 100kW – **FM:** Göttelhorn: 88.0, 91.3, 95.5Mc 100kW.

Telefunken AG, Germany: delivered studio equip. (recorders).

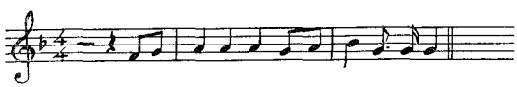
Kathrein Antennen, Germany: FM-Antennas.

HOME SCE. in German: M.W. Prgr: W 04.57–08.30, 10.00–23.05. Sun 05.30–23.05 – **N. Wrp:** W 05.00, 06.00, 07.30, 12.00, 16.00, 18.30, 21.00, 23.00. Sun 06.00, 07.00, 12.00, 18.30, 21.00, 23.00.

FM Prgr: Mo-Fri 17.00–22.00. Sat 13.30–22.00. Sun 07.15–13.00, 14.00–21.00 – **N:** W 17.30, 21.30. Sun 12.00, 18.30, 21.00.

ANN: "Hier ist der Saarländische Rundfunk auf Wellenlänge 211m bzw. auf Ultrakurzwellen 88.0, 91.3 und 95.5MHz".

INT-SIG: "Glück auf, der Steiger kommt".



V. by QSL-card – **PUB:** Prgr. schedule free on request.

SENDER FREIES BERLIN (Anstalt des öffentlichen Rechts)

AD: W 05.30–06.40, 10.00–11.15. From 16.30 – **ADDR:** Masuren Allee 8-14, 1 Berlin 19. **Cable:** Sender Freies Berlin. **Te:** 92031 – **L.P:** Vorsitzender d. Rundfunkrates: Dr. F. Suchan. Intendant: W. Steigner. Dir. Prgr: H. H. Fischer. Dir. Tec: U. Blässer. Dir. Adm: H. Koch.

HOME SCE:

Berlin 1st Prgr. 566 kc 530 m 20 kW – FM 88.75 Mc 10 kW
Berlin 2nd Prgr. 1484 – 202 – 5 – – FM 92.4 – 10 –
Berlin 3rd Prgr. FM: 96.3 Mc 10 kW.

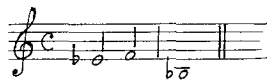
Telefunken AG, Germany: delivered mw-tr's: 2×5kW, 1×100kW. FM-tr's: 1×0.3kW, 1×3kW; studio equip. (recorders).

1st Prgr: Mo-Fri 03.55–03.30, Sat 03.55–04.30, Sun 04.58–03.30. **N:** 04.00 (W), 05.00 (W), 06.00, 07.00 (W), 08.00 (Sun), 09.00 (W), 10.00 (W), 12.00, 14.00 (W), 16.00, 18.00 (W), 18.45, 21.00, 23.00.

2nd Prgr: Mo-Fri 15.00–23.15, Sat 08.20–23.10, Sun 06.58–23.10. **N:** W as 1st prgr. 04.00–16.00, 18.15, 22.00, 23.00. Sun 07.00, 13.00, 16.00, 18.15, 22.00, 23.00.

3rd Prgr: D 18.20-approx. 22.30.

ANN: "Hier ist der Sender Freies Berlin mit dem ersten Prgr... zweiten Prgr" **INT-SIG:**. Cembalo:



V. by QSL-card – **F.PL:** 100kW mw-tr. 1st Prgr. (566kc) – **PUB:** "Vorschau" (weekly).

SÜDDEUTSCHER RUNDFUNK

(Anstalt des Öffentlichen Rechts)

AD: W: 06.05–06.55, 12.00–13.15 – **ADDR:** 7000 Stuttgart-O, Neckarstr. 145. **Cable:** Rundfunk, Stuttgart. **Te:** 299701. **Telex:** 0723456. **Studios:** Heidelberg-Mannheim: Heidelberg, Marstallstr. 6. Karlsruhe: Kriegsstr. 168 – **L.P:** Vorsitzender des Rundfunkrats: Dr Valentin Gaa, Landrat, Mannheim. Vorsitzender des Verwaltungsrats: Dr. rer. nat. h. c. Dr. ing. e. h. Alex Möller, Generaldir. (MdB), Karlsruhe. Intendant: Dr. Hans Bausch. Programmdir: Dr. Peter Kehm. Verwaltungsdir: Friedrich Müller. Technischer Dir: Dr. Helmut Rupp. Dir. TV: Horst Jaedicke.

HOME SERVICE:

M.W. Prgr. (rel. by S.W. and FM): Sun 04.56–00.10, Mo 03.56–03.30, Tues, Thurs 03.56–23.15, Wed 03.56–03.55, Fri 03.56–03.30, Sat 03.56–24.00. Break in transmission: Mo–Fri: 13.15–14.00 exc. for Mühlacker on 575kc.

Stations	kc	m	kW		kc	m	kW
Mühlacker	575	522	100	Schwäbisch-Hall	1484	202	0.2
Heidelberg				Eberbach	1484	202	0.2
Dossh.	998	301	10	Mosbach	1484	202	0.2
Buchen Walldürn	998	301	0.2	Bopfingen	1484	202	0.2
Ulm. Jungingen	1169	257	5	Ellwangen	1484	202	0.2
Heilbronn-				Adelsheim	1484	202	0.2
Obereisesh.	1169	257	10	Gerabronn	1484	202	0.2
Bad Mergenth.	1412	212	3	Giengen	1484	202	0.2
Wertheim	1484	202	0.2	Kirchberg	1484	202	0.2
Heidenheim	1484	202	0.2	Külsheim	1484	202	0.2
Crailsheim	1484	202	0.2	Neresheim	1484	202	0.2

Short Wave: Mühlacker: 6030kc 49.75m 20kW.

FM:	ch	Mc	kW		ch	Mc	kW
Stuttgart I	26	94.7	100	Aalen I	27	95.1	50
Waldenburg I	39	98.8	100	Geislingen I	28	95.5	0.5
Heidelberg I	36	97.8	100	Ulm I	25	94.5	1

N: 04.30, 05.00, 06.00, 07.00, 08.00, 11.30, 16.00, 17.00, 18.00, 21.00, 23.00.

FM-Prgr: W: 04.35–09.15, 09.45–23.15. Sat: 04.35–24.00. Sun: 07.05–23.10.

	ch	Mc	kW		ch	Mc	kW
Stuttgart II	10	90.1	100	Stuttgart			
Waldenburg II	23	93.8	100	(Stadt) II	3	88.0	0.5
Aalen II	14	91.1	50	Heidelberg II	6	88.8	100
B.Mergenth.IIA	3	87.8	0.5	Mühlacker	8	89.5	4.5
Geislingen II	20	93.0	0.5	B.Mergenth.IIB	21	93.2	0.5
Ulm II	7	89.2	1.0	Wertheim	16	91.8	0.1
				Buchen	16	91.9	0.1

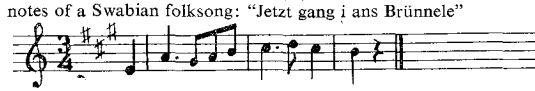
Telefunken AG, Germany: delivered mw-tr's: 1×5kW (Ulm), 1×100 kW (Mühlacker), FM-tr's: 2×0.3kW (Ulm, Geislingen), 2×3kW (Aalen), studio equipment (recorders).

Kathrein Antennen, Germany: FM-Antennas.

N: 05.30, 06.30, 07.30, 12.00, 13.00, 16.30, 17.30, 18.30, 21.30, 23.00.

For Italian, Greek, Spanish Workers in Germany: D 17.45–18.00.

ANN: "Hier ist der Süddeutsche Rundfunk" – **INT-SIG:** The first notes of a Swabian folksong: "Jetzt gang i ans Brünnele"



V. by QSL-card.

SÜDWESTFUNK (Anstalt des öffentlichen Rechts)

AD: M.w.: Mo, Tues, Thurs, Fri: 09.00–10.55, Wed 09.30–10.55, Sat 12.30–13.20, 17.10–17.30 – **FM:** W 06.10–06.40, Mo–Fri 07.05–09.00, 17.10–17.40, Sat 07.05–08.30.

ADDR: Anstalt des öffentlichen Rechts, Hans Bredowstrasse, Baden-Baden. **Cable:** Südwestfunk Baden-Baden. **Te:** 761. – **Studios: Freiburg i Br.:** Günterstal, Kyburg. **Mainz:** Deutschhausplatz 8. **Tübingen:** Matthias-Koch-Weg 7. – "Zweigstellen". **Kaiserslautern:** Auf dem Sess. **Koblenz:** Januarius-Zick-Str. 8. **Trier:** Christophstrasse 24.

L.P: Vorsitzender des Rundfunkrates: H. Matthes, Mainz, Vorsitzender des Verwaltungsrates: Dr. J. Knecht, Freiburg i Br. Intendant: Senator h.c. Prof. Fr. Bischoff. Programmdir. u. stellvertretender Intendant: L. Hartmann. Tech. Dir: Dr. H. v. Braunmühl. Verwaltungsdir: A. Manke. Press u. Inf: H. R. Fröbel. Leiter Freiburg Studio: E. Brugger. Leiter Mainz Studio: T. W. Zwermann. Leiter Tübingen Studio: A. G. Richter.

HOME SERVICE

PRGR. I: Sun 05.50–24.00. W 04.45–23.10 (Wed 24.00, Sat 01.00).

M Waves:	kc	m	kW		kc	m	kW
Bad Dürrheim	665	451	20	Sigmaringen	827	363	3
Baden-Baden	827	363	1.5	Trier	827	363	1
Freiburg	827	363	40	Rheinsender	1016	295	120
Kaiserslautern	827	363	3	Ravensburg	665	451	20
Koblenz	827	363	0.5	Reutlingen	665	451	10

Short Wave: Bad Dürrheim 7265kc 41.29m 1.5kW.

FM	ch	Mc	kW		ch	Mc	kW
Baden-Baden	40	98.9	0.5	Koblenz	23	94.0	2.5
Betzdorf	20	93.1	0.35	Linz	35	97.4	18
Blauen	19	92.6	2.5	Potzberg	23	93.9	20
Feldberg/				Raichberg	24	94.3	12
Schwarzw.	36	97.9	1	Wannenberg	19	92.8	1
Haardtkopf	20	93.0	18	Witthoh	11	90.4	37.5
Hochrheinsend.	14	91.1	0.07	Wolfsheim	40	99.1	18
Hornisgrinde	31	96.2	60				

N, Wrp: 04.50(W), 06.00, 07.00, 08.45(W), 11.50, 15.00(W), 21.00, 23.00 – **"Tribune der Zeit":** W 18.30. Sun 18.40 – **"Deutsche Pressestimmen":** Mo–Fri: 12.05 – **Wrp:** 06.55, 18.30(W) – **Mbg:** Sun 17.10.

PRGR. II: Sun 05.50–24.00. W 04.45–23.10 (Wed 24.00. Sat 01.00).

FM	ch	Mc	kW		ch	Mc	kW
Baden-Baden	13	90.9	0.5	Koblenz	15	91.6	2.5
Betzdorf	9	89.8	0.35	Linz	18	92.4	18
Blauen	7	89.2	2.5	Mainz	15	91.4	0.035
Eifel	14	91.8	8	Potzberg	13	90.8	20
WDR-Progr.	22	93.8	8	Raichberg	4	88.3	12
Feldberg/				Waldburg	14	91.2	18
Schwarzw.	9	89.8	1	Wannenberg	7	89.0	1
Haardtkopf	10	90.0	25	Weinbiet	10	89.9	36
Hochrheinsend.	3	88.0	0.07	Witthoh	18	92.4	25
Hornisgrinde	22	93.5	60	Wolfsheim	5	88.4	18

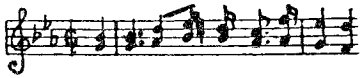
Telefunken A.G. Germany, delivered 20 FM tr's: Baden Baden (2×0.25 kw), Blauen (2×3kw), Koblenz (2×0.3, 2×1kw), Linz/Rhein (2×3kw), Potzberg (2×3kw), Wolfsheim (2×0.25, 2×3kw), Hornisgrinde (2×0.25, 2×10kw); studio equipments (recorders).

Kathrein Antennen, Germany: FM-Antennas.

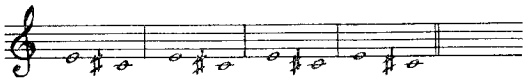
N, Wrp: 04.50(W), 06.00, 07.00(W), 09.00(Sun), 11.00(W), 13.45, (Sun), 15.00(W), 19.00, 21.30(W), 23.00 – **L.L:** French by R: Tues. Wed, Thurs 09.00–09.15 – **Wrp:** 06.55(W).

ANN: "Hier ist der Südwestfunk. Über Mittelwelle und UKW I hören

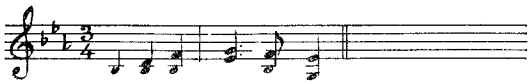
Sie... Über UKW II hören Sie...". – **INT-SIG: Baden-Baden:** Motif from Mozart's "Zauberflöte": "Bald prangt den Morgen zu verkünden" (Piano).



Freiburg: Glockenmotiv des Freiburger Münsters: "Petrus und Maria".



Tübingen: "Droben im Oberland" (2 horns).



V. by QSL-card and letter. Rp.

WESTDEUTSCHER RUNDFUNK (WDR) (Anstalt des öffentlichen Rechts) – **FI:** by license payments.

ADDR: Wallrafplatz 5, Köln. **Cable:** WDR. **Te:** 20701 – **Studios: Bonn,** Dahlmannstrasse 32. **Dortmund,** Westenhellweg 86/88. **Bielefeld,** Lessingstrasse 3. **Münster,** Warendorfer Str. 1. **Düsseldorf,** Palmenstrasse 16. **Essen,** Waldthausenpark 2.

L.P: Intendant: Klaus von Bismarck. Verwaltungsdirektor & Justitiar: Dr. H. Brack. Sound Dir. Dr. F. Brühl. TV-Dir: Dr. Hans-Joachim Lange. Dir. Tec: W. Werner. Verwaltungsleiter: Ernst Przybylla. Int. Prgr-Austausch: Frau Dr. F. Hömke. Pressechef: J. Rick.

HOME SERVICE:

M.W. Prgr: W 03.55–09.30, 10.45–03.50. Night Prgr. (on 971kc only): 00.10–03.50, (Sat 01.10–04.50). Sun 04.57–00.10. Night Prgr: 00.10–03.50.

Medium Waves:	kc	m	kW	Medium Waves:	kc	m	kW
Aachen/Stolb	701	428	5	Münster	1502	199.7	0.8
Herford	701	428	2	Bonn	1586	189	5
Siegen	701	428	2	Kleve	1586	189	3
Langenberg	971	309	100				

FM. Common WDR and NDR m.w. prgr:

	ch	Mc	kW		ch	Mc	kW
Aachen-Stolb	3	88.0	5	Münster	17	92.0	6
Bonn	4	88.3	0.5	Nordhelle	11	90.3	15
Kleve	42	99.7	0.25	Siegen	34	97.1	0.5
Köln	3	87.8	0.5	Wittgenstein	6	88.7	15
Langenberg	6	88.8	100	Teutob. Wald	12	90.6	100
Monschau	2	87.7	0.04				

N. Wrp: W 04.00, 05.00, 06.00, 07.00, 07.55, 12.00, 16.00 (W) no. Wrp, 18.00, 20.45, 23.00. Sun 06.00, 07.45 (Church news) 08.00, 12.00, 18.00, 20.45, 23.00. In addition during "Musik bis zum frühen Morgen" (5 mins. each): 01.00, 02.00, 03.00 during night of Fri to Sat.

Comm: Mo-Fri 12.10–12.15, 18.10–18.15, 21.00–21.10. **Wrp:** Repeats of short version within music prgr's at 04.30, 05.30, 06.30, 07.30.

FM-Prgr: W 05.25–23.00(Sat 24.00) Sun 06.00–24.00.

	ch	Mc	kW		ch	Mc	kW
Aachen-Stolb	23	93.9	5	Monschau	24	94.2	0.04
Bonn	19	92.8	0.5	Münster	24	94.1	18
Eifel	22	93.6	6	Nordhelle	22	93.5	15
Kleve	21	93.3	0.25	Siegen	19	92.6	0.5
Köln	16	91.8	0.5	Teutob. Wald	21	93.2	100
Langenberg	27	95.1	100	Wittgenstein	18	92.3	15

N, Wrp: W 04.00, 05.00, 05.30, 06.30, 07.30, 11.30, 17.00 (no Wrp), 19.00, 22.00. Sun 07.30, 11.45, 19.00, 22.00 – **N. from Northrhine Westphalia:** Mo-Fri 16.50, Sat 16.55.

3rd Prgr: Wed-Sat 19.10–21.30 (approx). Sun 14.30–16.45 (approx).

	ch	Mc	kW		ch	Mc	kW
Langenberg	41	99.2	100	Nordhelle	37	98.1	15
Münster	9	89.7	6	Teutob. Wald	33	97.0	100

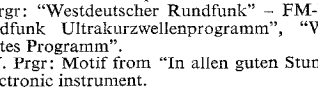
Telefunken AG, Germany: delivered mw-tr's: Herford 5/2kW, Aachen 5kW, Langenberg 100kW; studio equipment (recorders).

Kathrein Antennen, Germany: FM-Antennas.

N: Wed-Sat 19.00 – **For Foreign workers in Germany:** Italian: D 18.45–19.00. Greek: Tues 18.30–18.45. Spanish: Fri 18.30–18.45.

ANN: M.W. Prgr: "Westdeutscher Rundfunk" – FM-Prgr: "Westdeutscher Rundfunk Ultrakurzwellenprogramm", "Westdeutscher Rundfunk, Drittes Programm".

INT-SIG: M.W. Prgr: Motif from "In allen guten Stunden" (L. van Beethoven). Electronic instrument.



V. by QSL-card or letter. Re. to Technische Direktion – **F.PL:** Extension of FM tr's to 3 prgr's each, exc. Eifelsender.

ALLIED STATIONS

AMERICAN FORCES NETWORK. (United States Army)

The American Forces Network operates solely to provide American Forces in Europe with information, education and entertainment.

ADDR: American Forces Network, Europe APO 757, New York, N.Y., USA. **Te:** Frankfurt 314.800. – **L.P:** Commander, American Forces Network: Lt. Col. R. Cranston. Prgr. Supervisor: D. Brewer. Tec. Supervisor: F. C. Mortensen.

STATIONS:	kc	m	kW		kc	m	kW
Munich*)	548	547	100	Bamberg	1304	230	0.25
Nürnberg*)	611	491	10	Berchtesgaden	1304	230	0.25
Grafenwöhr	611	491	10	Heidelberg	1304	230	1
Kaiserslaut.*)	611	491	10	Regensburg	1304	230	0.25
Frankfurt*)	872	344	150	Fulda	1304	230	0.25
Berlin*)	935	321	10	Wertheim	1304	230	0.25
Ansbach	1034	290	0.25	Goeppingen	1304	230	0.25
Bad Kissingen	1034	290	0.25	Bitburg	1394	215	0.25
Stuttgart*)	1106	271	100	Garmisch	1502	199.7	0.25
Bremerhaven*)	1142	263	5	Giessen	1502	199.7	0.25
Hersfeld	1142	263	0.25	Straubing	1502	199.7	0.25
Schweinfurt	1142	263	0.25	Rothwesten	1502	199.7	0.25
Würzburg	1142	263	0.25	Wildflecken	1502	199.7	0.25

FM: Berlin 87.85Mc 1.5kW, Frankfurt 98.7Mc 55kW, Stuttgart 101.2Mc 0.45kW. *) Studio Installations.

Continental Electronics, USA, delivered 1kW mw-tr's (Kaiserlautern, Heidelberg, Berlin, Bremerhaven, Grafenwöhr), 10kW tr. (Kaiserlautern).

Telefunken AG, Germany, delivered 1 × 0.3kW FM tr (**Berlin**).

D. PRGR: 05.00(Sun 06.00)–00.05 (Berlin: 24 h) – **N:** Every h on the h (5 min) + major newscasts (15 min) at 06.00, 11.30, 17.00, 21.00 – **Hymns from Home:** Mo–Fri 05.05, 23.50 – **Request Shows:** 05.15, 06.20, 10.30, 11.05, 15.05, 16.05 – **Local N:** Mo–Fri 17.15. Mo–Fri: Report from Europe 19.00 **Wrp:** 05.00, 06.00, 11.15, 17.00, 19.15, 21.15 – **Rel:** Sun 09.30 (Catholic), 10.05 (Protestant).

ANN: "This is AFN, The American Forces Network, Europe" announced at least every half hour – **INT-SIG:** Every h on the h. AFN announces the time and the sixth an final pip is exactly on the h as announced – **V.** by QSL-card. Records accepted **PUB:** Prgr. sched. (weekly) not available to individuals.

BRITISH FORCES NETWORK (Military)

B.F.N. is operated by the War Office for the purpose of providing entertainment and a reliable news sce. for H.M. Forces in N.W. Germany and Berlin. It is a non-comm. org. does not accept adv.;

ADDR: BFN, Cologne, British Forces Post Office 19. **Te:** 381757. **L.P:** St. Dir: I. J. Woolf. S.P.O: P. Buckle. Act. Dir. Tec: A. S. Challoner.

FM-st's:	Mc	kW		Mc	kW		Mc	kW
Langenberg	96.5	50	Bonn	99.8	2	Berlin	98.75	1
Nordhelle	96.5	15	Herford	95.4	6	Drachenberg	93.0	80
Verden	97.6	50						

English: 05.30(Sun 07.00)–22.30(Sat 24.00) – **N. from BBC:** 07.00, 08.00, 12.00, 18.00, 21.30. N summaries on the half h hourly – **N. of Germany:** W 06.50, 12.10.

ANN: "This is the British Forces Network in Germany".

V. by letter. Rp – **PUB:** BFN-bulletin weekly.

RADIO CAE (Canadian Army Europe)

ADDR: CAPO 5050, Werl – **STATION:** 87.8Mc 0.25kW – **D.PRGR. in English & French:** Mo-Fri 05.30–23.00. Sat 09.00–24.00. Sun 09.00–23.00. Musical Entertainment, local weather forecasts, local ann. Other prgr's rel. CBC Montreal.

RADIO FORCES FRANÇAISES DE BERLIN (FFB)

Relay st. for entertainment of French Forces in Berlin.

ADDR: Kurt-Schumacher-Damm, Quartier Napoléon, Berlin-Reinickendorf – FM 93.6Mc 3kW: Continuously exc. from 08.00–09.00 (Mo, Wed, Fri) and Thurs 23.00–Fri 05.13 – **Rel:** RTF prgrs – **N:** 07.00, 12.00.

Telefunken AG, Germany, delivered tr.

RADIO FREE EUROPE (Private, non-comm.)

FI: By American contribution through the Radio Free Europe Fund.

ADDR: R. Free Europe, Division of the Free Europe Commit, 2 Park Avenue, New York 16, N.Y., USA. **Cable:** Natfecom, N.Y. **Te:** LExington 2–8900 – R. Free Europe Hqs, 1 Englischer Garten, München 22, Germany. **Cable:** Raduropa. **Te:** 229921 – **Raret** (Portugal relay base), Sociedade Anonima de R. Retransmissão, Av. Padre Manuel da Nobrega 8-B, Lisbon. **Cable:** Raretsa. **Te:** 721131.

L.P: Free Europe Commit. (New York): Pres: John Richardson, Jr. RFE Hqs (Munich): Dir: C. Rodney Smith. Dir. of Eng. and Sce's: R. E. Geiger. New York office: Dir: C. Kaufmann. Dep. Dir. Eng: W. H. Moffat. Portugal Rel. St: Man. Dir: H. C. Lolliot. Dir. of Eng: M. N. Oebbecke.

STATIONS: Medium Wave: Holzkirchen 719kc 417.2m 135kW. **Short Wave:** Eight s.w. tr's in Biblis, Germany (10, 20, 50kW), six s.w. tr's in Holzkirchen, Germany (10kW), and thirteen s.w. tr's near Lisbon, Portugal (10, 50, 100kW).

kc	m	kc	m	kc	m	kc	m	kc	m
3960	75.75	7145	41.99	9705	30.91	11895	25.22	17725	16.93
3990	75.19	7155	41.93	9710	30.90	11915	25.17	17735	16.92
3995	75.09	7165	41.87	9715	30.88	11930	25.15	17770	16.88
5960	50.37	7175	41.80	9720	30.86	11940	25.13	17805	16.85
5970	50.25	7180	41.78	9725	30.85	15115	19.85	17835	16.82
5985	50.12	7190	41.72	9750	30.77	15135	19.82	17840	16.82
5990	50.08	7205	41.64	11725	25.59	15145	19.81	17855	16.80
6015	49.88	7225	41.52	11735	25.56	15170	19.78	17875	16.79
6020	49.83	7235	41.47	11745	25.54	15185	19.76	17885	16.78
6095	49.22	7245	41.41	11755	25.52	15195	19.74	21485	13.97
6105	49.14	7285	41.18	11760	25.51	15215	19.71	21600	13.89
6125	48.98	7295	41.12	11775	25.48	15255	19.66	21620	13.87
6130	48.94	9505	31.56	11805	25.41	15265	19.66	21665	13.84
6160	48.70	9595	31.27	11815	25.39	15295	19.61	21720	13.81
6185	48.50	9605	31.23	11820	25.38	15355	19.54	21745	13.80
7105	42.22	9655	31.07	11830	25.36	15365	19.53		
7115	42.16	9670	31.02	11855	25.31	15405	19.47		
7140	42.02	9695	30.95	11885	25.24	15420	19.46		

Brown Boveri, Switzerland: One 135kW m.w. tr. (Holzkirchen).

Most RFE frequencies are registered for use both in Germany and in Portugal and the selection of transmission location is a function of propagation conditions throughout the year.

D.PRGR. directed to Bulgaria, Czechoslovakia, Hungary, Poland, and Rumania:

	Oct.–March m.b.	April–Sept. m.b.
Bulgarian Sce:		
04.30–06.00*	75, 49, 41, 31	41, 31, 25
17.00–18.00	49, 41, 31, 25, 19	31, 25, 19, 16
20.00–22.00	75, 49, 41, 31	49, 41, 31, 25, 19, 16
22.30–23.00	75, 49, 41, 31	49, 41, 31, 25, 19
Czech-Slovak Sce:		
03.45[1]–22.00	75, 49, 41, 31, 25, 19, 16, 13	75, 49, 41, 31, 25, 19, 16
22.40–23.00	417, 75, 49, 41, 31	417, 75, 49, 41, 31, 25, 19
Hungarian Sce:		
03.55[2]–22.00	49, 41, 31, 25, 19, 16, 13	41, 31, 25, 19, 16
22.20–22.40	417, 75, 49, 41, 31	417, 75, 49, 41, 31, 25, 19
Polish Sce:		
03.55[3]–06.00	417, 49, 41	417, 41, 31, 25
06.00–07.00	75, 49, 41, 31, 25, 19, 16, 13	49, 41, 31, 25, 19
17.00–22.20	417, 75, 49, 41, 31, 25	417, 75, 49, 41, 31, 25, 19, 16
Rumanian Sce:		
02.54–04.30**	75, 49, 41	49, 41, 31, 25
16.00–17.00	49, 41, 31, 25, 19	31, 25, 19, 16
18.00–20.00	75, 49, 41, 31, 25	49, 41, 31, 25, 19, 16
22.00–22.30	75, 49, 41, 31	49, 41, 31, 25, 19

* Sun 05.30–08.00 – [1] Sun 05.54 – [2] Sun 05.55 – [3] Sun 04.55 – ** Sun 04.00–05.30 – **N.** every h on the h (for all Sce's).

Meter band assignments change throughout the year as propagation conditions vary.

ANN: Sign on and sign off: **Bulgarian:** "Took E Radio Svobodna Evropa" ("This is Radio Free Europe").

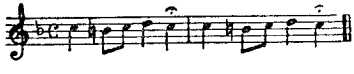
Czechoslovak: "Hlásí se vám československá stanice rozhlasu Svobodná Evropa" ("This is the Czechoslovak Station of Radio Free Europe calling").

Hungarian: "Itt a Szabad Europa Radiója" ("This is Radio Free Europe").

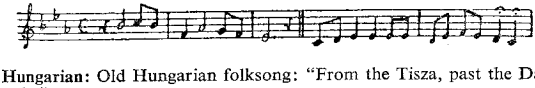
Polish: "Mówi rozglosnia Polska Radia Wolna Europa" ("This is the Polish station of Radio Free Europe").

Rumanian: "Aici e Radio Europa Libera, Jurnalul vorbit al Romanilor de pretutindeni" ("Here is Radio Free Europe, the spoken journal of all Rumanians").

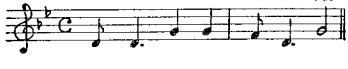
INT-SIG: Bulgarian: Part of Bulgarian National Anthem (Celeste):



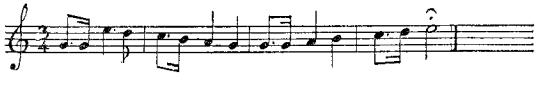
Czech/Slovak: Czech and Slovak National Anthem (Celeste):



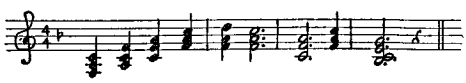
Hungarian: Old Hungarian folksong: "From the Tisza, past the Danube":



Polish: Polish patriotic song: "Hail Glorious Dawn of May". (Brass instruments):



Rumanian: Rumanian folk tune. (Piano and Celeste):



V. by QSL-card.

RADIO LIBERTY (Pr.-Former Citizens of the U.S.S.R.)

R. Liberty speaks to the peoples of the U.S.S.R. and the Soviet Armed Forces as the free voice of their fellow countrymen abroad. R. Liberty is supported by the American Committee for Liberation, Inc, which derives its funds from private persons and organizations in the U.S.A. and which also operates the transmitting facilities.

ADDR: Lilienthalstrasse 2, Munich 19. **Cable:** AmComLib. **Te:** 68931. **L.P:** Headquarters, New York: Pres. of the American Committee: H. H. Sargeant. Dir: R. Liberty Network Division: S. Y. McGiffert. Munich: Deputy to the Pres, Europe: R. F. Kelley. Dir. R. Liberty Division: L. W. Shollenberger.

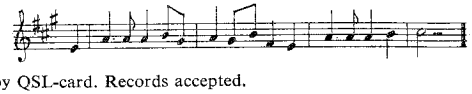
STATIONS: Lampertheim (Germany): 50/20kW; Playa de Pals (Spain): 250/100kW; Pan Chiao (Taiwan): 50/25kW.

kc	m	kc	m	kc	m	kc	m	kc	m
3990	75.19	7285	41.30	9720	30.86	11965	25.07	15430	19.45
6055	49.55	7295	41.12	11725	25.58	11970	25.06	17745	16.91
6125	48.98	9565	31.36	11765	25.20	15340	19.56	17785	16.87
7130	42.08	9660	31.06	11825	25.37	15345	19.55	17885	16.77
7170	41.84	9675	31.00	11860	25.30	15370	19.52	17890	16.77
7220	41.55	9680	30.99	11935	25.14	15395	19.49	17895	16.75
7255	41.38	9685	30.97						

D.PRGR: 00.00–24.00. Prgr's prepared in Munich.

Target areas: E. Germany 75, 49, 41, 31, 25m.b – Hungary 75, 49, 41m.b – No. So. Russia, Byelo-Russia, Ukraine 49, 41, 31, 25, 19, 16m.b – Tartaristan, Bashkiristan, Caucasus, Turkestan 41, 31, 25, 19, 16m.b – **N:** Every half h.

ANN: Azerbajanian: "Danyshyr Azadlyk Radiosu" – Armenian: "Chosume "Azatutiun" Radioakayane" – Belorussian: "Gavaryts Radyio Svoboda" – Georgian: "Laparakobs Radiosadguri Thavisuphleba" – North-Caucasian: "Govorit Radiostantsia Svoboda" – Russian: "Govorit Radiostantsia Svoboda" – Tatar Bashkir: "Monda "Azatlyk" Radiostansyese Syuili" – Turkestan: "Gepleyar "Azatlyk" Radiosy" – Ukrainian: "Govorit Radio Svoboda" – **INT-SIG:** Hymn to Freedom – by Gretchaninoff.



V. by QSL-card. Records accepted.

RIAS-BERLIN (BerlinWest) FI: ByUnited States Information Agency.

ADDR: 1 Berlin 62, Kufsteiner Str. 69. **Cable:** Rias-Berlin. **Te:** 710271 – **L.P:** Dir: R. H. Lochner. Dir. Prgr: H. Kundler. Dir. Tec: A. Pösniker. Dir. Listeners Rel. and Press: H. Kirstaedter.

STATIONS: [1]=RIAS I, [2]=RIAS II, [3]=VOA.

	kc	m	kW	
München	173	1734	1000	04.00–07.30, 11.00–12.40, 15.00–17.00
Berlin-Britz[2]	683	439	100	04.00–16.57(Sun 15.40)
Hof[2]	683	439	40	17.00(Sun 15.43)–03.50
Hof[1]	737	407	40	04.00–16.57(Sun 15.40)
Berlin-Britz[2]	854	351	100	17.00(Sun 15.43)–03.50
Berlin-Britz[1]	989	303	300/200	24 h
München[3]	1196	251	300	20.00–21.00, 00.00–01.05
Berlin-Britz	6005	49.96	20	as 989, exc. 00.00–01.05 as 1196kc

FM: Berlin-Britz: ch24 – 94.3Mc 50kW[1], ch9 – 89.6Mc 30kW[2]

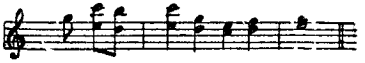
Telefunken AG, Germany: delivered mw-tr's: Hof (20/40kW), Berlin-Britz (1×20, 1×100, 1×300kW), FM-tr's: 1×0.25kW, 1×10kW, studio equip. (recorders).

D.PRGR: RIAS I+II: 23.00–17.00(Sat 13.30, Sun 09.00).

N. and Wrp: 23.00, 00.00, 01.00, 02.00, 03.00, 04.00, 04.30, 05.30, 06.30, 07.30, 08.30, 10.30(W), 11.30(W), 12.30(W), 15.30 – **RIAS I:** 12.00(Sun), 18.00, 20.30(W), 21.00(Sun), 22.00(W) – **RIAS II:** 18.30, 21.00(W), 11.30(Sun), 21.30(Sun) – **RIAS-VOA:** 00.00, 01.00, 04.00, 04.30, 05.30, 06.30, 07.15(W), 07.30(Sun), 11.00(W), 12.00(Sun), 12.30(Sun), 15.00(Sun), 15.30(W), 20.00, 20.50(W).

Folklore Music: Fri 18.30 (RIAS I) – **Rlg:** (RIAS I+II): Sun 06.15, 07.00, 07.35. W 05.40 – **L.L: English:** Tues, Thurs 14.30 (RIAS II), Wed, Fri 09.30 (RIAS I). **French:** Mo, Wed 14.30 (RIAS II), Tues, Thurs 09.30 (RIAS I) – **"Aus der Zone für die Zone":** W 18.15 (RIAS I), 18.45 (RIAS II) – **"Das RIAS-Frühprogramm":** D 04.00–06.30 – **"Die europäische Stunde":** Sun 14.00 (RIAS II), 17.00 (RIAS I), Wed 20.00 (RIAS II) – **Mbg:** "Musik kennt keine Grenze": Sat 14.00. Sun 09.00 (RIAS II) – **Voice of America:** 09.30 (Tues, Fri RIAS II), 14.15 (Tues, Fri I), Sun 15.00 (I), 17.00 (II), Mon-Fri 17.00 (II), 17.45 (I), 21.45

(Mo II), 22.05 (Thurs I) – **Prgr. preview:** (for the coming week, at dictation speed) Sun 08.40, Mo 13.45, Fri 22.30 (II), Sat 13.30 (I), 17.40 (II)
ANN: "Hier ist RIAS-Berlin" – **INT-SIG:** From a Trio Sonata.



V. by QSL-card – **PUB:** Press service weekly RIAS educationbroadcast presservice every six weeks.
Continental Electronics, USA: 1000kW-tr. Munich.

VOICE OF AMERICA RADIO STATION IN GERMANY

ADDR: Voice of America, Washington 25, D.C, USA.
Medium Wave: Munich A 1196kc 251m 150kW: 04.00–07.30, 17.00–01.00 – **Short Wave:** Munich 8/100kW: 02.00–07.45, 11.15–22.45.

kc	m	kc	m	kc	m	kc	m
3980	75.38	6060	49.50	9530	31.48	15235	19.69
5970	50.25	6140	48.86	9545	31.43	21595	13.89
6020	49.83	6160	48.70	11830	25.36		
6040	49.67	7250	41.38	15185	19.76		

Medium Wave:

04.00–04.30	English	19.00–19.30	Serb.	21.30–22.00	Polish
04.30–04.45	Czech	19.30–20.00	Polish	22.00–23.00	English
04.45–05.00	Serb.	20.00–21.00	RIAS	23.00–23.30	Hung.
05.00–07.30	English	21.00–21.15	Serb.	23.30–00.00	English
17.00–19.00	English	21.15–21.30	Slovene	00.00–01.00	RIAS

Short Wave: See USA.

ANN: "This is the Voice of America Relay St. at Munich" – **INT-SIG:** Choir of brass playing a 10 note version of "Columbia, the Gem of the Ocean". See USA – V. by QSL-card. No return postage.

GERMAN DEMOCRATIC REPUBLIC

L.T: GMT+1 h – Pr.L: German.

STAATLICHES RUNDFUNKKOMITTEE (Go.)

ADDR: Berlin-Oberschöneweide, Nalepastrasse 18-50. **Cable:** Funkkomitee. Te: 632831 – **L.P:** Dir. Gen: Prof. Dr. h.c. G. Eisler, R. Grimmer. Dir. Adm: H. Ebel. Dir. Tec: W. Schmidt. Dir. Foreign Rel: M. Müller, Intendant: K. Ehrich (Deutschlandsender), H. Classen (Berliner Rundfunk), W. Kleinert (Radio DDR). C. Kirschnek (R. Berlin International).

HOME SERVICE:

Deutschlandsender: 24 h.

185 kc	1621.6 m	200/1000 kW	692 kc	433.8 m	200 kW
782 –	383.6 –	250 kW	6115 –	49.06 –	20 –
728 –	412.1 –	220 –	7295 –	41.12 –	5 –

FM: Dequede 96.95Mc 1kW – Inselsberg 97.15Mc 10kW – Schwerin 97.25Mc 10kW – Leipzig 96.6Mc 10kW – Brocken 97.4Mc 10kW – Sonneberg 94.2Mc 1kW – Berlin 97.65Mc 3kW – Karl-Marx-Stadt 97.05Mc 1kW – Marlow 96.65Mc.
N, Wrp: D 01.00, 03.05, 03.30, 04.00, 04.30 (W), 05.00, 05.30 (W), 06.00, 07.00, 09.00, 11.00 (W), 12.00, 14.00 (W), 16.00, 18.30, 21.00, 23.00, 24.00 – **Comm:** W 18.42, 23.10 (rep). Sun 11.00, 23.10 (rep) – **Folklore Music:** Sun 07.20 (2nd and 4th week), Mo 09.30, Wed 10.30, Thurs 15.30.
Berliner Rundfunk: 03.30–24.00(Sat 01.00).

	kc	m	kW		kc	m	kW
Karl-Marx-St.	602	498	20	Reichenbach	912	328.9	20
Berlin	611	491	300	Plauen	1079	278.1	20

FM: Dresden 90.1Mc, Marlow 93.5Mc, Schwerin 98.55Mc, Berlin 91.4Mc, Brocken 91.55Mc, Leipzig 90.4Mc, Dequede 98.9Mc, Sonneberg 91.7Mc, Inselsberg 90.2Mc.
N, Wrp: D 03.30, 04.00, 04.30, 05.00, 05.30, 06.30, 07.30, (W), 09.30, 11.30, 12.30, 14.00 (Sun), 15.30, 18.30, 20.30, 22.30, 23.30.
Comm: W 18.30, Sun 12.00 – **Folklore Music:** Sun 07.00, Mo 12.00, Wed 09.10, Thurs 07.00, Sat 15.35.
Berliner Welle: 1358kc 220.9m 50kW – 656kc 457.3m 20kW.
FM: Berlin 99.7Mc 10kW: **D** 03.00–00 30 – **N:** 03.05, 03.30, 04.00, 05.00, 06.00, 08.00, 12.00, 17.00, 18.00, 20.00, 21.00, 22.00 – **Comm:** 18.09.
Radio DDR I: 24 h.

	kc	m	kW		kc	m	kW
Schwerin	529	567.1	20	Berlin	881	340.5	100
Greifswald	557	538.6	5	Dresden	1043	287.6	240
Leipzig	575	521.6	100	Suhl	1052	285.1	20
Erfurt	629	476.9	20	Seelow	1546	194.1	5
Cottbus	746	402.1	–	Bernburg	1570	191.1	–

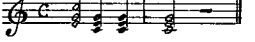
FM: Berlin 95.8Mc, Marlow 88.25Mc, Helpterberg 95.95Mc, Brocken 88.95Mc, Leipzig 88.45Mc, Schwerin 89.2Mc, Inselsberg 87.85Mc, Dequede 89.4Mc.
N: 00.30, 01.30, 03.05, 04.00, 05.00, 06.00, 07.00, 09.00, 11.00, 12.00, 14.00, 17.00, 18.00, 21.00, 23.00 – **Comm:** Sun 12.00, W 18.00 – **Folklore Music:** Tues 07.10, 13.15, 16.30, Wed 09.40, Thurs 07.10, Fri 20.00, Sat 09.10.
Radio DDR II: D 09.10–23.20.
FM: Marlow 91.05Mc 10kW, Leipzig 93.85Mc 10kW, Rheinsberg 90.5Mc 10kW, Karl-Marx-Stadt 92.85Mc 10kW, Schwerin 92.75Mc 10kW, Brocken 94.6Mc 1kW, Inselsberg 92.55Mc 1kW, Cottbus 98.6 Mc, Görlitz 95.4Mc, Dresden 92.25Mc, Dequede 94.9Mc.
N: 11.00, 18.00, 20.30, 23.00 – **Comm:** W 18.00.

RADIO BERLIN INTERNATIONAL:

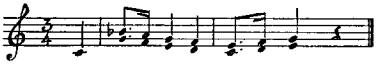
Stations:

1133 kc	264.8 m	7300 kc	41.10 m	11765 kc	25.50 m
1430 –	210.0 –	9530 –	31.48 –	11795 –	25.43 –
5970 –	50.25 –	9560 –	31.38 –	15240 –	19.69 –
6050 –	49.59 –	9600 –	31.25 –	15255 –	19.67 –
6060 –	49.50 –	9615 –	31.20 –	15340 –	19.56 –
6080 –	49.34 –	9725 –	30.85 –	17825 –	16.83 –
6115 –	49.06 –	9730 –	30.83 –		

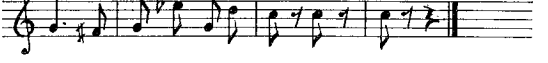
All transmissions 30 min's exc. where indicated.
EUROPEAN SCE.
On 1133kc: 19.20 Danish, 19.45 Swedish, 20.15 English – **On 1430kc:** 21.00 French, 21.30 Italian, 22.00 English, 22.30 Spanish.
On 6080, 6115, 7300kc and 9730kc (only 15.30–18.00, 19.45–22.00). **English:** 17.30, 20.15, 22.00 – **French:** 18.30, 21.00 – **Danish:** 18.00, 19.20 – **Italian:** 15.30 (on 9730/11765kc), 21.30 – **Spanish:** 22.30 – **German:** 16.30, 19.00, 20.45 – **Swedish:** 17.00, 19.45 (DX-prgr. each Mo 17.00).
NEAR EAST SCE: Arabic: 05.30–06.30 on 9560/11765kc, 11.00–13.30 on 9730/11765/15340kc; 18.30–21.00 on 9600kc; 22.00–23.00 (to No. We. Africa) on 5970kc – **English:** 15.30 on 11795kc – **German:** 14.00 on 9730/11765/15340kc.
AFRICA SCE: [1] to C. Africa. [2] to We. Africa.
English: 04.30[1] on 11795kc; 06.30[2] on 15255kc; 12.30–13.15[2] on 17825kc; 13.30–14.15[1] on 17825kc; 16.00[1] on 11795kc; 17.30[2] on 9615kc; 19.30[1] on 9615kc; 21.30[2] on 5970kc – **French:** 05.00[1] on 11795 kc; 06.00[2] on 15255kc; 11.00[1] on 17825kc; 12.00[2] on 17825kc; 18.00[2] on 9615kc; 19.00[1] & 20.00[1] on 9615kc; 21.00[2] on 5970kc – **German:** 05.30–05.45[1] & 16.30[1] on 11795kc; 18.30–18.45[2] on 9615kc; 23.00[2] on 5970kc.
LATIN AMERICA SCE. (60 min's broadcasts).
On 9615kc to C. America; On 9725kc to So. America: **German:** 00.00, 03.00 – **Portuguese:** 22.00, 01.00 – **Spanish:** 23.00, 02.00.
SO. EA. ASIA SCE: English: 07.00–08.00, 12.00–13.00 on 15240kc; 14.00–15.00 on 11795kc; 15.30–16.00 on 9530kc – **German:** 11.30–12.00, 13.00–13.30 on 15240kc.
Testprgr. to No. America: To East Coast:
On 6050kc (from 1/2 64 on 9560kc): **English:** 01.00, 02.30 – **German:** 01.30, 03.00 – **To West Coast: On 6080kc: English:** 03.45, 04.45 – **German:** 04.15.
ANN: Home Service: "Hier ist der Deutschlandsender (Berliner Rundfunk"), "R. DDR – I Programm", "R. DDR – II Programm". "Hier ist der Berliner Rundfunk", "Hier ist die Berliner Welle". **R. Berlin International: E:** "This is R. Berlin International the Voice of the German Democratic Republic". F: "Ici Berlin International, la République Démocratique Allemande vous parle". (Africa Sce: "Ici R. Berlin International, la Voix de la République Démocratique Allemande"). Swedish: "Här är R. Berlin International, Tyska Demokratiske Republikens sändning på svenska". Danish: "De lytter til R. Berlin International. Den Tyske Demokratiske Republik sender til Danmark". I: "Qui R. Berlino Internationale, la voce della Repubblica Democratica Tedesca". P: "R. Berlin Internacional, a voz da República Democrática Alemana". Sp: "Habla R. Berlin Internacional, la Voz de la República Democrática Alemana".
INT-SIG: Deutschlandsender: From "Die Meistersinger von Nürnberg" (Richard Wagner)



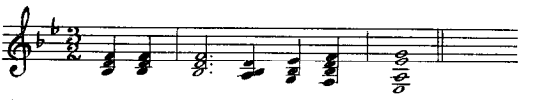
Berliner Rundfunk I: Motif from Opera "Regina" (Albert Lortzing) performed by 2 French horns.



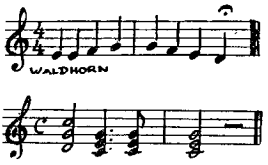
Berliner Welle: "Das ist die Berliner luft".



Radio DDR I: "Wann wir schreiten Seit an Seit" ("mit uns zieht die neue Zeit").



Foreign Service: Theme from Ludvig van Beethoven's 9th Symphony ("Freude, schöner Götterfunken"):



V. by QSL-card – **PUB:** "Unser Rundfunk" (weekly) free on request.

RADIO VOLGA (Soviet Military Administration)

ADDR: Menzelstr, Potsdam.
STATION: Königswusterhausen 263kc 1141m 20/150kW.
D.PRGR: Mo-Fri 05.00–12.00, 13.00–22.35, Sat 05.00(Sun 06.00)–22.35. (relay R. Moscow I) – **Special prgr's for Soviet Forces in E. Germany:** Sun 09.15–13.00, W 16.00–17.58, D 22.00–22.35 – **N:** (rel. R. Moscow): 05.00 (W), 10.00 (W), 13.00, 15.00, 19.00, 21.03, 22.00. **Wrp:** (for E. Germany) 13.55 (Sun), 17.55 (W), 22.30 (D) – **ANN:** "Govorit Volga".

BROADCASTS OF THE SOVIET COMMITTEE FOR CULTURAL RELATIONS with Country-Fellowmen abroad.

ADDR: Sowjetisches Komitee für kulturelle Beziehungen mit Landsleuten im Ausland, Behrenstr. 64/65, Berlin W 8. **Postal Addr:** Berlin NW. 63, P.O. Box 6. **Te:** 221480 – **L.P:** Pres: V. Kirillov.
STATIONS: Leipzig: 1322kc 226.9m 150kW – 9730kc 30.83m 50kW.
D.Prgr. in Byelorussian: 07.00–08.00 on 1322/9730kc (Sun only).
Further details see USSR.

GIBRALTAR (British Colony)

L.T: GMT+1 h – **Pr.L:** English, Spanish.

RADIO GIBRALTAR (Go. Comm.)

FI: By Go. and adv – **AD:** 4 per day – **ADDR:** Wellington Front Gibraltar. **Cable:** R. Gibraltar. **Te:** 2619 – **L.P:** Dir. Gen: E. H. Davies, O.B.E. St. Mgr: H. J. Ramagge. Dir. Tec: T. G. Black.
STATION: Wellington Front 1484kc 202.2m 0.5/1kW.
HOME SCE: English, Spanish: D 06.55–23.00. **N:** English: 07.00, 11.00 (exc. Sat), 12.30*, 20.00, 20.15*. Spanish: 13.00*, 13.15, 21.30*, 21.35 – **Wrp:** W 08.25, 13.30. Sun 08.30.
* Local N, other times relay BBC.
ANN: "This is Gibraltar" – **V.** by letter. Re. in E. or Sp. Recorded re. accepted. **PUB:** Prgr. schedule free on request.

GREAT BRITAIN

L.T: GMT (Su: GMT+1 h) – **Pr.L:** English.

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ADDR: Broadc. House, London, W. 1. **Cable:** "Broadcasts". **Te:** Langham 4468 – Telex: 22182.
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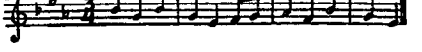
Regional Controllers: Wales: A. B. Oldfield-Davies, C.B.E. Midland: H. J. Dunkerley, C.B.E. N. Ireland: R. C. McCall, C.M.G. Scotland: A. Stewart, C.B.E, West: S. J. de Lotbinière, C.V.O, O.B.E. North: R. Stead.
HOME SCE: W 06.40–23.45 approx. Sun 07.50–23.45 approx.

		kc	m	kW
Cromer	Northern	692	434	2
Moorside Edge	–	692	434	150
Whitehaven	–	692	434	2
Barrow	–	1484	202	2
Westerglen	Scottish	809	371	100
Burghead	–	–	–	100
Redmoss	–	–	–	5
Dumfries	–	–	–	2
Washford	Welsh	881	341	100
Penmon	–	–	–	8
Towyn	–	–	–	5
Wrexham	–	–	–	2
Brookmans Park	London	908	330	140
Ramsgate	–	1484	202	2
Start Point	West	1052	285	120
Barnstaple	–	–	–	2
Clevedon	–	1457	206	20
Bartley	–	–	–	10
Brighton	–	–	–	2
Folkestone	–	–	–	1
Bexhill	–	–	–	2
Redruth	–	–	–	2
Droitwich	Midland	1088	276	150
Postwick	–	–	–	7.5
Lisnagarvey	N. Ireland	1340	224	100
Londonderry	–	–	–	0.25
Stagshaw	Northern	1151	261	100
Scarborough	–	–	–	2

N: 07.00 (W), 08.00, 09.00, 13.00, 18.00, 22.00, 23.00.
Greenwich T.S: 07.00 (W), 08.00 (W), 09.00, 11.00 (W), 13.00, 18.00, 23.00.
LIGHT PRGR: W 06.30–24.00. Sun 08.55–24.00.

	kc	m	kW		kc	m	kW
Droitwich	200	1500	400	Moorside Edge	1214	247	50
Brookmans Park	1214	247	50	Plymouth	–	–	0.25
Burghead	–	–	20	Redmoss	–	–	2
Lisnagarvey	–	–	10	Redruth	–	–	2
Londonderry	–	–	0.25	Newcastle	–	–	2
				Westerglen	–	–	50

N: Mo-Fri 06.30 and every h on the half h until 20.30, 19.00, 22.30, 23.55. Sat 06.30 and every h on the half h until 12.30, 19.00, 19.30, 20.30, 22.30, 23.55. Sun 09.00, 09.30, 10.30, 19.30, 22.30, 23.55.
Greenwich T.S: 06.45 (200kc only), 09.00, 10.00(W), 12.00 (exc. Sat), 19.00 (W), 19.30 (Sun), 20.30.
Opening SIG-TUNE: Oranges and Lemons 14.00, 15.00 (Mo-Fri).



There are four versions, one played on the novachord and three played on the novachord celeste; the last three differ in that they are of varying duration. Also, Harp arpeggio – choice of six harp interludes.
THIRD PRGR: 20.00(Sat 18.00, Sun 17.00)–23.00 approx.
647kc 464m: Daventry (150kW); Edinburgh, Glasgow, Newcastle, Redmoss (2kW) – **1546kc 194m:** Belfast, Bournemouth, Dundee, Exeter, Stockton (0.25kW); Brighton, Fareham, Leeds, Liverpool, Preston, Plymouth, Redruth, Swansea (1kW).
NETWORK THREE: Mo-Fri starts between 18.00– and 19.00–20.00. Sat & Sun afternoons variable times. (Transmitters as for Third Prgr).

FM	Home Sce.	Light Pr.	Third Pr.	kWE.R.P.
Wrotham (Kent)	93.5	89.1	91.3	120
Pontop Pike (Newcastle)	92.9	88.5	90.7	60
Divis (Belfast, N. Ireland)	94.5	90.1	92.3	60
No. Hessary Tor (So. Devon)	92.5	88.1	90.3	60
Meldrum (Aberdeenshire)	93.1	88.7	90.9	60
Holme Moss (No. England)	93.7	89.3	91.5	120
Sutton Coldfield (Birmingham)	92.7	88.3	90.5	120
Talconeston (Norwich)	94.1	89.7	91.9	120
Blaen Plwyf (We. Wales)	93.1	88.7	90.9	60

Great Britain

	Home Sce.	Light Pr.	Third Pr.	kW(ERP)
Wenvoe (So. Wales)	94.3* / 92.125**	89.95	96.8	120
Rowridge	92.9	88.5	90.7	60
Kirk O'Shotts	94.3	89.9	92.1	120
Sandale (Carlisle)	94.7*** / 92.5****	88.1	90.3	120
Rosemarkie (Moray Firth)	92.9	88.5	90.4	60
Llanddona (Anglesey)	94.0	89.6	91.8	3/12d
Llangollen (No. Wales)	93.25	88.85	91.05	5/11d
Isle of Man (Douglas)	92.8	88.4	90.6	2.4/5.5d
Orkney	93.7	89.3	91.5	3/20d
Thrumster	94.5	90.1	92.3	0.1/10d
Peterborough	94.5	90.1	92.3	1/21d
Dover	94.4	90.0	92.4	0.5/6.5d
Les Platons (Jersey)	97.1	91.1	94.75	0.5/1.4d
Llandrindod Wells (Central Wales)	93.5	89.1	91.3	1/3d
Londonderry	92.7	88.3	90.55	2/13d
Redruth	94.1	89.7	91.9	1/9d
Oxford	95.85** / 93.9a	89.5	91.7	1/9d
Fort William	93.7	89.3	91.5	1.5
Kinlochleven	94.1	89.7	91.9	0.002
Oban	93.3	88.9	91.1	1.5
Askirk	93.5	89.1	91.3	3/18d
Skye (temporary)	93.9			

* Welsh Home Sce. ** We. of England Home Sce. *** Northern Home Sce. **** Scottish Home Sce. a Midland Home Sce.

The Marconi Company Ltd, G.B, delivered.
Sound tr's: Daventry 2×250, 6×100kW, Brookmans Park 50kW, Rampisham 2×250, 2×100kW, Rowridge 6×3kW, Towyn 5kW, Folkestone 2kW, Shoreham 2kW, Barnstaple 2kW, Dumfries 2kW, Comer 2kW, Whitehaven 2kW, Scarborough 2kW, Ramsgate 6×2kW, 6×600W. **Ant:** Manningtree, Sutton Coldfield – **studio equip:** Rowridge, Sutton Coldfield.
AKG, Austria, delivered studio equip. (recorders, microphones).

EXTERNAL SERVICES

kc	m	kc	m	kc	m	kc	m
3952.5	75.90	9525	31.50	11860	25.30	17740	16.91
3975	75.47	9555	31.40	11880	25.25	17745	16.91
5965	50.28	9580	31.32	11890	25.23	17755	16.90
5975	50.21	9600	31.25	11905	25.20	17790	16.86
5990	50.08	9610	31.22	11910	25.19	17810	16.84
6010	49.92	9615	31.20	11920	25.17	17860	16.80
6035	49.71	9625	31.17	11930	25.15	17870	16.79
6050	49.59	9640	31.12	11945	25.12	17880	16.78
6070	49.42	9645	31.10	11955	25.09	17890	16.77
6080	49.34	9650	31.09	12040	24.92	18080	16.59
6110	49.10	9660	31.06	12095	24.80	21455	13.98
6120	49.02	9675	31.01	15070	19.91	21470	13.97
6125	48.98	9690	30.96	15105	19.86	21490	13.96
6150	48.78	9700	30.93	15110	19.85	21530	13.93
6165	48.66	9705	30.91	15140	19.82	21550	13.92
6170	48.62	9710	30.90	15180	19.76	21595	13.89
6180	48.54	9725	30.85	15190	19.75	21600	13.89
6195	48.43	9735	30.82	15200	19.74	21610	13.88
7110	42.19	9740	30.80	15210	19.72	21615	13.88
7120	42.13	9750	30.77	15230	19.70	21630	13.87
7130	42.08	9755	30.75	15235	19.69	21640	13.86
7135	42.05	9760	30.74	15245	19.68	21660	13.85
7140	42.02	9765	30.72	15260	19.66	21675	13.84
7150	41.96	9770	30.71	15285	19.63	21680	13.84
7185	41.75	9825	30.53	15300	19.61	21710	13.82
7200	41.67	9915	30.26	15310	19.60	21740	13.80
7210	41.61	11705	25.63	15360	19.53	25650	11.70
7220	41.55	11710	25.62	15375	19.51	25670	11.66
7230	41.49	11720	25.60	15390	19.49	25720	11.66
7240	41.44	11750	25.53	15420	19.46	25750	11.65
7260	41.32	11770	25.49	15435	19.44	25840	11.61
7280	41.21	11780	25.47	15445	19.42	25850	11.60
7320	40.98	11790	25.45	17695	16.95	25920	11.57
7325	40.96	11800	25.42	17705	16.94	26040	11.52
9410	31.88	11820	25.38	17715	16.93	26080	11.50
9510	31.55	11840	25.34	17730	16.92		

The above frequencies are shared between the European and Overseas Servcies and in addition the following frequencies on Long and Medium Waves are used in the European Services.

200 kc 1500 m 647 kc 464 m 1295 kc 232 m

FM: Berlin 90.2Mc.

The two columns below show the wavebands which the BBC expects to use during the months from October to March and April to September. Details of wavelengths can be obtained from the programme journals, and are always announced at the microphone.

EUROPEAN SERVICES

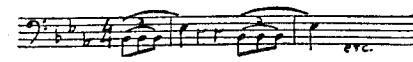
	Oct.–March m.b.	April–Sept. m.b.
In Albanian:		
17.45–18.15 N, Prgr.	49, 41, 31, 25	31, 25, 19
In Bulgarian:		
04.45–05.00 N, Prgr.	49, 41, 31, 25	49, 41, 31, 25, 19, 16
10.30–10.45 N, Prgr.	25, 19, 16, 13	25, 19, 16, 13
13.30–13.45 N, Prgr.	31, 25, 19, 16	31, 25, 19, 16
15.30–15.45 E. by R. (Tues, Thurs, Sat)	31, 25, 19	25, 19
16.15–16.30 N, Prgr.	41, 31, 25, 19, 16	31, 25, 19, 16, 13
20.30–21.00 N, Prgr.	49, 41, 31, 25	49, 41, 31, 25, 19, 16
In Czech:		
06.45–07.00 N, Tues, Thurs, Fri, Sun	75, 49, 41, 31, 25	49, 41, 31, 25, 19, 16
11.30–11.45 (CBC)	31, 25, 19, 16	31, 25, 19, 16
14.00–14.15 N, Prgr.	41, 31, 25, 19	41, 31, 25, 19, 16
14.15–14.45 Sun only	25	25, 19
18.00–18.15 E. by R. Sun, Tues, Thurs, Sat	75, 49, 41, 31, 25	31, 25, 19
19.00–19.30 N, Prgr.	75, 49, 41, 31, 25	49, 41, 31, 25, 19
22.00–22.15 Mo, Tues, Wed, Fri, Sat	232, 75, 49, 41	232, 75, 49, 41, 31
In Slovak:		
06.45–07.00 Mo, Wed, Sat	75, 49, 41, 31, 25	49, 41, 31, 25, 19, 16
11.15–11.30 N, Prgr.	41, 31, 25, 19, 16	31, 25, 19, 16
16.45–17.00 N, Prgr.	49, 41, 31, 25, 19	41, 31, 25, 19, 16
22.00–22.15 Thurs, Sun	232, 75, 49, 41	232, 75, 49, 41, 31
In English:		
05.30–05.45 E. by R.	232, 75, 49, 41, 31	232, 75, 49, 41, 31, 25, 19
05.45–06.30 N, Prgr.		464, 75, 49, 31, 25, 19
06.00–06.30 N, Prgr.	464, 75, 49, 41	
06.45–07.00 E. by R.	464, 232, 75, 49, 41, 31	464, 232, 49, 41, 31, 25, 19
07.00–07.30	75, 49, 41	
09.15–09.30 Rlg. Sce. (W)	–	31, 25
10.15–10.30 Rlg. Sce. (W)	31, 25	
12.30–12.45 E. by R. / 12.45–13.00 E. by Dict. / 13.00–13.15 N.	41, 31, 25, 19, 16	41, 31, 25, 19, 16
17.00–17.15 E. by R.	232, 75, 49, 41, 31, 25	232, 41, 31, 25, 19
17.15–18.30 N, Prgr.	232, 75, 49, 41, 31,	232, 49, 41, 31, 25, 19
18.30–18.45 E. by R.	25	
19.45–20.00 N, Dict.		232
20.00–20.15 E. by R. / 20.15–20.30 E. by Dict.	232, 75, 49, 41, 31	49, 41, 31, 25, 19
21.45–22.00 E. by R.	232, 75, 49, 41	232, 75, 49, 41, 31
22.00–22.15 N, Prgr.	232, 75, 49, 41, 31	232, 75, 49, 41, 31
In Finnish:		
15.30–16.00 (Sun)	41, 31	31, 25
15.45–16.00 E. by R. (Mo, Wed, Thurs, Sat)	41, 31, 25	31, 25
16.00–16.45 N, Prgr.	41, 31, 25	31, 25
19.30–19.45 N.	232, 75, 49, 41	232, 49, 41, 31, 25
In French:		
05.15–05.45 N, Prgr.	464	464
07.30–08.00 N, Prgr.	464, 49, 41, 31, 25	464, 49, 41, 31, 25
11.30–12.15 N, Prgr.	464, 41, 31, 25	464, 41, 31, 25
18.30–19.30 N, Prgr.	232, 49, 41	232, 49, 31, 25
In German:		
04.30–05.15 N, Prgr.	1500, 232, 75, 49 41[1]	1500, 232, 75, 49, 41, 31[1]
05.45–06.15 N, Prgr.	1500, 232, 75, 49, 41[1]	232, 75, 49, 41, 31, 25[1]
11.45–12.00 N. / 12.00–12.15 Rlg. (Sun)	1500, 232, 49, 41, 31, 25,	232, 49, 41, 31, 25, 19[1]
18.30–18.45 (CBC)	75[1]	41[1]
18.45–19.00 E. by R.	75, 49, 41[1]	49, 41, 25[1]
19.00–20.00 N, Prgr.	232, 75, 49, 41, 31	
19.00–21.15 N, Prgr.		232, 49, 31[1]
20.00–21.15 N, Prgr.	232, 75, 49, 41[1]	
In Greek:		
05.00–05.15 N, Prgr.	49, 41, 31	31, 25, 19
11.45–12.00 N, Prgr.	19, 16	19, 16
18.30–19.00 N, Prgr.	41, 31, 25	25, 19, 16
20.15–20.30 E. by R. (Sun, Mo, Wed, Fri)	49, 41, 31, 25	31, 25, 19
In Hebrew:		
21.15–21.45 N, Prgr.	41, 31, 25	31, 25, 19

In Hungarian:	Oct.–March m.b.	April–Sept. m.b.
05.30–05.45 N, Prgr.	75, 49, 41, 31, 25	75, 49, 41, 31, 25, 19, 16
06.30–06.45 N, Prgr.	75, 49, 41, 31, 25	49, 41, 31, 25, 19, 16
10.15–10.45 (Sun)	25	25
12.15–12.30 N, Prgr.	25	41, 31, 25, 19, 16
13.15–13.30 N, Prgr.	49, 41, 31, 25, 19, 16	41, 31, 25, 19, 16
14.00–14.15 N, Prgr.	—	
16.30–16.45 N, Prgr.	49, 41, 31, 25, 19	41, 31, 25, 19, 16
18.00–18.15 E. by R. (Mo, Wed, Fri)	75, 49, 41, 31, 25, 19	31, 25, 19
19.30–20.00 N, Prgr.	49, 41, 31, 25	41, 31, 25, 19, 16
21.45–22.00 N, Prgr.	75, 49, 41, 31	75, 49, 41, 31, 25, 19
In Italian:		
17.30–17.45 N, Prgr. E. by R.	49, 41, 31	25, 19
22.30–23.00 N, Prgr.	232, 75, 49, 41	232, 49, 41, 31
In Polish:		
04.15–04.30 N, Prgr.		49, 41, 31, 25
05.15–05.30 N, Prgr.	—	49, 41, 31, 25 19
06.15–06.30 N, Prhr.	232, 75, 49, 41, 31	
12.00–12.15 E. by R. (Wed, Sat)	31, 25, 19	31, 25 19
13.00–13.15 N, Prgr.	—	
14.15–14.30 N, Prgr.	41, 31, 25, 19	41, 31, 25, 19, 16
14.30–14.45 (CBC)	31, 25, 19	31, 25, 19
17.15–17.30 N, Prgr.	—	
18.15–19.00 N, Prgr.	75, 49, 41, 31, 25	31, 25, 19
21.15–21.45 N, Prgr.	232, 75, 49, 41	232, 41, 31, 25
22.15–22.30 N, Prgr.	232, 75, 49, 41	
In Portuguese:		
21.15–21.30 N, Prgr.	49, 41, 31	41, 31
22.15–22.30 N, Prgr.	49, 41, 31	41, 31
In Rumanian:		
05.00–05.15 N, Prgr.	49, 41, 31, 25	41, 31, 25, 19, 16
10.15–10.30 N, Prgr.	25, 19, 16, 13	25, 19, 16, 13
13.45–14.00 N, Press Rev.	31, 25, 19, 16	31, 25, 19, 16
15.30–15.45 E. by R. (Mo, Wed, Fri)	31, 25, 19	25, 19
16.00–16.15 N, Prgr.	41, 31, 25, 19, 16	31, 25, 19, 16
19.00–19.30 N, Prgr.	49, 41, 31, 25	41, 31, 25, 19
21.00–21.15 N, Prgr.	75, 49, 41, 31	49, 41, 31, 25, 19
In Russian:		
03.30–03.45 CBC	75, 49, 41, 31	49, 41, 31, 25, 19
03.45–04.00	464, 75, 49, 41, 31	464, 49, 41, 31, 25, 19
11.00–11.15 N, Prgr.	31, 25, 19, 16	25, 19, 16
14.45–15.30 N, Prgr.	41, 31, 25, 19, 16	31, 25, 19, 16
15.30–15.45 (Mo, Wed, Thurs, Sat 15.30–16.00 (Tues, Fri)	41, 31, 25, 19, 16	31, 25, 19, 16
17.00–17.15 E. by R.	49, 41, 31, 25, 19, 16	31, 25, 19, 16
17.15–18.00 N, Prgr.	75, 49, 41, 31, 25 19	41, 31, 25, 19, 16
20.30–21.00 N, Prgr.	75, 49, 41, 31	49, 41, 31, 25, 19
In Spanish:		
13.15–13.30 N, Prgr.	25, 19	25, 19
13.30–13.45 (Mo, Wed, Thurs, Fri. E. by R.)	25, 19	25, 19
21.30–22.15 N, Prgr.	49, 41, 31	41, 31
In Turkish:		
05.45–06.00 N, Prgr.	49, 41, 31,	31, 25, 19
15.45–16.00 N, Prgr.	31, 25, 19	25, 19
19.00–19.30 N, Prgr.	41, 31, 25	31, 25, 19, 16
20.15–20.30 E. by R. (Tues, Thurs, Sat)	49, 41, 31, 25	31, 25, 19
In Serbo-Croat:		
14.15–14.30 N, Prgr.	25, 19	19
14.30–14.45 E. by R. (Mo, Wed)	25, 19	19
14.30–14.45 N, Prgr.(Sun)		19
15.15–15.45 Slovene (Sun)	41, 25	19
17.00–17.15 N, Prgr.	49, 41, 31, 25, 19	25, 19
18.15–18.30 Slovene	49, 41, 31, 25	25, 19
19.30–20.15 N, Prgr.	49, 41, 31	25, 19

[1] also 90.2Mc Berlin.

GREENWICH T.S. at the h are radiated on one or other of the European Prgr.s on the long, medium or sw. normally scheduled at 05.00–11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 19.00, 21.00 – Big Ben: 12.00.

ANN: E: "This is London calling in the European Service of the BBC" – **Fr:** "Ici Londres – **G:** "Hier ist England" – **I:** "La Voce di Londra" – **INT-SIG: for European Service:** Morse Signal "V" (V for Victory) played on Timpani (i.e. ...–).



OVERSEAS SERVICES:

GENERAL OVERSEAS SERVICE:

The General Overseas Service, which operates for 22¾ hours a day, (03.00–08.00, 09.15–03.00) and which can be heard at suitable listening times all over the world, is addressed to English-speaking listeners wherever they may be. All Prgr's are in English. The times at which the General Overseas Service is directed to various parts of the world and the appropriate wavebands are:

Australia:	Oct.–March m.b.	April–Sept. m.b.
06.00–08.00	41, 31, 25	49, 41, 31, 25
09.15–11.30	19, 16	25. 19, 16
20.00–22.15 22.15–22.30 (W)	41, 31, 25	41, 31, 25
New Zealand:		
06.00–08.00	49, 41, 31, 25	49, 41, 31, 25
09.15–11.30	19, 16	31, 25, 19
20.00–22.15 22.15–22.30 (W)	31, 25	41, 31, 25, 19
Japan, No. China, NW. Pacific:		
09.15–11.30	25, 19, 16	25, 19, 16
So. Ea. Asia, India, Pakistan, Ceylon:		
01.45–02.15	49, 41, 31	49, 41, 31, 25
09.15–18.15	31, 25, 19, 16, 13, 11	25, 19, 16, 13
23.00–00.30	49, 41, 31	49, 41, 31, 25
Ea. Africa, Arabia, Cyprus, Egypt, Iraq, Iran, Israel, Jordan, Lebanon, Sudan, Turkey:		
03.00–08.00	49, 41, 31, 25, 19, 16	49, 41, 31, 25, 19, 16, 13
09.15–21.15	49, 41, 31, 25, 19, 16, 13, 11	49, 31, 25, 19, 13
Malta, Greece, Italy, C. Mediterranean, No. Africa:		
04.00–08.00	49, 41, 31, 25	49, 41, 31, 25, 19
09.15–22.45	49, 41, 31, 25, 19, 16, 13	41, 31, 25, 19, 16
C. and So. Africa:		
04.00–08.00	41, 31, 25, 19, 16	41, 31, 25, 19, 16, 13
09.15–22.45	41, 31, 25, 19, 13, 11	41, 31, 25, 19, 16, 13
Gibraltar, W. Mediterranean, We. Africa, N.W. Africa:		
05.00–08.00	49, 41, 31, 25, 19	49, 41, 31, 25, 19
09.15–22.45	49, 41, 31, 25, 19 13	41, 31, 25, 19, 13
Southern Atlantic:		
22.00–00.30	31, 25	41, 31
Canada, USA, Mexico:		
21.15–02.45	49, 31, 25	49, 31, 25, 19, 16
We. Indies, C. American, So. America (No. of Amazon):		
11.00–11.15	19	
20.00–22.15	49, 31, 25, 19	25, 19, 16, 13
22.45–03.30	49, 31, 25, 19	49, 31, 25, 19, 16
So. America:		
20.00–03.30	31, 25, 19, 16	31, 25, 19, 16

N: 00.00, 02.00, 03.00, 03.30, 04.00, 05.00, 06.00, 07.00, 09.15, 11.00, 13.00, 16.00, 18.00, 20.00, 22.00, 23.00.

N. about Britain: 04.09, 07.20, 13.09, 18.09, 23.09. **R. Newsreel:** 00.15, 06.15, 07.45, 14.00, 18.15.

From the Editorials: 01.50 (ex. Sun), 03.30, 05.09, 07.09, 09.30.

Greenwich T.S: 00.00, 02.00, 03.00, 04.00, 05.00, 06.00, 07.00, 11.00, 13.00, 14.00, 16.00, 18.00, 20.00, 23.00.

Big Ben: 14.00 (Full Strike).

Short Wave Listeners Corner: Tues 10.15, Wed 00.30, Thurs 15.45.

ANN: "This is the General Overseas Service of the BBC".

INT-SIG: Bow Bells.

The General Overseas Service is also rebroadcast by the BBC Far Eastern Station and by the East-Mediterranean-Relay.

PACIFIC SERVICE (English):

Australia, N. Zealand:	Oct.–March m.b.	April–Sept. m.b.
06.15–07.00	—	49, 41, 31, 25
08.00–08.06	—	31, 25
08.00–08.45	41, 31, 25, 19	
ASIAN SERVICES:		
China, Japan:		
11.00–11.30	19, 16, 13	19, 16, 13
12.00–12.45	25, 19, 16, 13	19, 16, 13
South-East Asia:		
10.30–13.00	19, 16, 13	19, 16, 13
13.15–14.15	25, 19, 16, 13	16, 13
India, Pakistan, Ceylon:		
10.00–10.30	16, 13	16, 13
14.15–15.45	25, 19, 16	19, 16

Iran:	Oct.-March m.b.	April-Sept. m.b.
16.15–17.00	41, 31, 25, 19	41, 25, 19, 16, 13

10.00 Bengali (Mo, Wed, Sat), Sinhalese (Tues, Fri), Tamil (Sun, Thurs), 10.30 Indonesian, 11.00 Japanese, 11.30 Vietnamese, 12.00 Kuoyu, 12.30 Cantonese, 12.45 Malay, 13.15 Thai, 13.45 Burmese, 14.15 Urdu, 15.00 Hindi, 16.15 Persian.

ARABIC SERVICE

M. East, C. Med:	Oct.–March m.b.	April–Sept. m.b.
03.45–05.45	75, 49, 41	75, 41, 31, 25
11.00–21.00	41, 31, 25, 19, 16, 13	31, 25, 19, 16, 13
Ea. Africa:		
03.45–05.45	31, 25	25, 19
11.00–21.00	41, 31, 25, 19, 16, 13	31, 25, 19, 16, 13
No. Africa, Morocco, W. Med:		
04.45–05.45	49, 41	41, 31
11.00–21.00	41, 31, 25, 19	41, 25, 19

SCE. TO EA. AFRICA

03.30–03.45	Swahili	75, 41, 31	41, 31, 25
10.00–10.15	Swahili	16, 13	16, 13
10.15–11.00	**English**	16, 13	16, 13
14.15–15.00	Urdu	13	13
14.30–15.00	Somali	19, 13	19, 13
15.00–15.45	Hindi	13	13
15.45–16.15	Swahili	19, 16, 13	19, 16, 13
17.00–17.30	Somali	31, 25, 19	25, 19, 16, 13

SCE. TO WE. AFRICA:

05.45–06.00	Hausa	49, 41, 31	31, 25, 19
11.00–12.00	**English**	16, 13	16, 13
13.45–14.15	Hausa	16, 13	16, 13
19.30–19.45		31, 25, 19	31, 25, 19, 16

SCE. TO MAURITIUS:

09.45–10.00 (altern. Mo) in English/French in 16, 13, 11 m.b.

SCE. TO C. AFRICA:	Oct.–March m.b.	April–Sept. m.b.
09.45–10.00 English (Tues, Thurs)	16, 13, 11	16, 13

SCE. TO WEST-EQUATORIAL AFRICA, NO. AFRICA:

French	m.b.		m.b.
05.15–05.45	41, 31, 25, 19	12.00–13.30	19, 16, 13, 11
07.30–08.00	25, 19, 16, 13	18.30–19.30	31, 25, 19, 16, 13

SCE. TO MALTA:

15.10–15.15	Maltese	25, 19, 16

SCE. TO FALKLAND ISLANDS:

	Oct.–March m.b.	April–Sept. m.b.
22.15–22.45 (Sun) English	31, 25	31, 25, 19

SCE. TO W. INDIES:

22.30–22.45 (W) English	49, 31, 25, 19	25, 19, 16, 13
22.15–22.45 Sun (W)		

NORTH AMERICAN SCE:

Canada, USA, Mexico:		
15.30–17.30	19, 16	
14.30–16.45**		19, 16

* English exc. 15.52 (Fri), 16.55–17.00 (Mo-Fri), 17.15 (Thurs), when French. ** English exc. 14.52 (Fri), 15.55–16.00 (Mo-Fri), 16.15 (Thurs) when French.

LATIN AMERICAN SERVICE:	m.b.	m.b.
Brazil: Portuguese: 23.00–00.15	31, 25, 19	31
C. Am, So. Caribbean Area, So. Am. (No. of Amazon):		
Spanish: 01.15–03.15	49, 31, 25	31, 25
Mexico:		
Spanish: 01.15–03.15	49, 31	31, 25
So. Am. (So. of Amazon):		
Spanish: 00.15–02.15	25, 19, 16	31, 25

N, in Spanish: 00.15, 01.15, 02.00, 03.00 – **N. in Portuguese:** 23.00, 00.00.

BBC FAR EASTERN STATION: See Singapore.

EAST MEDITERRANEAN RELAY: See Cyprus.

CENTRAL MEDITERRANEAN RELAY: See Malta.

SO. ATLANTIC RELAY: See Ascension Isl.

VOICE OF AMERICA RELAYS IN GREAT BRITAIN (BBC)

ADDR: Voice of America, Washington 25, D.C, USA.
DAILY PRGR: Blue Stars Network: 14.00–22.00.

15.00–15.30	Russian	18.30–19.00	Estonian
15.30–16.00	Ukrainian	19.00–19.30	Russian
16.00–16.30	Polish	19.30–20.00	Polish
16.30–17.00	Lithuanian	20.00–20.30	Russian
17.00–17.30	Russian	20.30–21.00	Czech
17.30–18.00	Latvian	21.00–21.30	Russian
18.00–18.30	Russian		

Grey Stars Network: 15.00–22.00.

14.00–14.30	Georgian	16.00–16.30	Russian
14.30–15.00	Armenian	16.30–17.00	Bulgarian
15.00–15.30	Georgian	17.00–17.15	Slovene
15.30–16.00	Armenian	17.15–17.30	Greek
17.30–18.00	Rumanian	20.30–21.00	Rumanian
18.30–19.00	Hungarian	21.00–21.15	Serbo-Croat
19.00–19.30	Serbo-Croat	21.15–21.30	Slovene
19.30–20.00	Bulgarian	21.30–22.00	Hungarian
20.00–20.30	Albanian		

ANN: The BBC announces its relay of the Voice of America programme stating the language and relay freq's – **V.** by QSL-card.

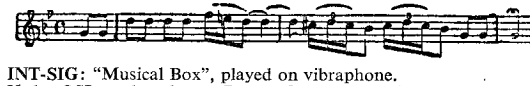
GREECE

L.T: GMT+2 h – **Pr.L:** Greek.

NATIONAL HELLENIC BROADCASTING INSTITUTE (Ethnikon Idhryma Radiophonias, Go. Statutory of Public Law). **FI:** by license payments and adv – **ADDR:** 4, Righillis St, Athens 138-Studios: Zappeion Bldg. Athens 118. **Cable:** RadiostAthens. **Te:** 714151 – **L.P:** Pres. of the Adm. Council: G. Sophronopoulos. Dir. Gen: C. Bastias, Dir. Tec: V. Aslanides.

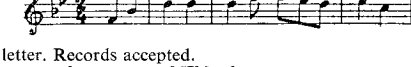
STATIONS:	kc	m	kW		kc	m	kW
Athens (Nat.)	728	412.1	150	Comotini*	1403	213.8	5
Athens (2' Prgr.)	1385	216.8	50	Volos*	1484	202.2	1
Athens (3' Prgr.)	665	451.2	15	Rodos*	1493	201.0	5
Corfu*	1007	298.0	50	Patras*	1511	198.5	0.2
Thessaloniki I	791	379.2	50	Chania*	1511	198.5	5
	6040	49.67	35	Amalias*	1562	192.1	1.25
Thessaloniki II*	1043	287.6	5	* Nat. & Reg.			

AKG, Austria: studio equipment (recorders, microphones).
HOME SCE: NAT. PRGR: W 04.55–08.00, 10.30–13.20, 15.00–22.00. Sun: 04.55–13.20, 15.00–22.00 – **N:** W 05.15, 05.45*), 06.15, 07.45(W), 11.00, 12.30(W), 17.30**), 19.30, 21.45. Sun 05.15, 05.25*), 11.00, 17.30**), 19.30, 21.45. *) E and F, **) incl. Newsreel – **Wrp:** 12.50(W), 17.55.
2. PRGR: (Light Prgr. mainly): W 05.00–07.00, 08.00–13.15, 15.00–21.30, Sat 05.00–07.00, 10.30–13.15, 15.00–21.30, Sun 05.00–21.30.
3' PRGR: D: 17.00–22.00 (Serious musical prgr.s only).
THESSALONIKI I: D: 04.55–06.30, 10.15–13.20 (Sun 04.55–13.20), 15.30–17.15, 18.00–18.30, 21.15–22.15. **N:** 05.10, 17.00, 22.00 "Calling Greek's in Europe" D 18.00–18.30, Thurs, Sat 21.15–22.00.
NAT. PRGR. and REG: D Morning, Midday, and Evening Prgr. (Reg. and Rel. Nat. Prgr. 728kc). **Approx. h of tr:** As Nat. Prgr.
ANN: Nat. Prgr: "Ethnikon Proghramma" – **2' Prgr:** "Dhéfteron Proghramma" – **3' Prgr:** "Triton Proghramma" – **Reg. Prgr:** "Edhó... (Athinai, Kérkyra, Thessaloniki, Patras etc.)" (This is... (Athens Corfu, Salonika, Patras etc).
STATION-SIG: Used by all m.w. st's of NBI: "Tsopanakos imouna" (once I was a shepherd boy), a folk song played on native flute and sheep bells



INT-SIG: "Musical Box", played on vibraphone.
V. by QSL-card or letter. Rp. preferred. Records accepted – **PUB:** "Radhioproghramma" (weekly in Greek) – **F.PL:** Two 100kW sw-tr's.

FORCES BROADCASTING STATIONS (Greek)
ATHENS (Central)
FI: By adv. only – **ADDR:** Radhiostathmos Enoplon Dhynameon, 136-Messoghion St., Aghia Paraskevi, Athens. **Te:** 662929 – **L.P:** Dir. Gen: A. Patsarissis, Mgr: I. Kalogeratos, Dir. Tec: E. S. Tsamoussis.
STATIONS: 1313kc 228.4m 20kW – 6045kc 49.63m 5kW
D. PRGR: Wi: W. 05.00–09.45, 10.00–23.00. Sun: 05.00–23.00. Su: W. 04.30–09.45, 10.00–13.15, 15.00–23.00. Sun: 04.30–23.00.
N.B: on weekdays m.w. frequency changes to 1300kc 230.6m for the period 08.00–09.45.
N: D 05.10, 12.00, 19.00, 21.00 – **L.L.** (English): Mo, Wed, Fri 16.30 – **Rlg. (Orthodox):** Sun 06.00–08.00.
ANN: "Edhó Athinai, Kendrikós Radhiophonikós Stathmós Enóplon Dhynámeon Helládhos" (This is Athens, the Central **R.** St. of the Greek Armed Forces) – **STATION-SIG:** The main motif from the march "Greece never dies" played on trumpets.



V. by letter. Records accepted.

	kc	m	kW	h of tr.
Florina	1142	262.7	1	04.30–07.30, 10.00–13.00, 15.30–21.00
Jannina	7150	41.96	0.3	04.30–07.30, 10.00–13.00, 15.30–21.00
Kavalla	1355	221.3	1	04.30–07.30, 10.00–13.00, 15.30–21.00
Kozani	7215	41.58	0.5	04.30–07.30, 10.00–13.00, 15.30–21.00
Larissa	5955	50.38	0.5	04.30–07.30, 10.00–13.00, 15.30–21.30
Serrai	7151	41.98	0.5	04.30–07.30, 10.00–13.00, 15.30–21.00
Thessaloniki	1169	256.6	10	04.30–07.30, 10.00–13.00, 15.30–22.00
Tripolis	6003	49.97	0.5	04.30–07.30, 10.00–13.00, 15.30–21.00

F.PL: All sw. st's exc. 6045kc to be replaced by mw's.

PYRGOS BROADCASTING STATION (Priv.)

(non profit association governed by an adm. council elected by free vote once every year by local subscribers – about 500 – who pay a monthly subscription of 10 drachma).
ADDR: 16 Diakou Str. Pyrgos, Ilias,Western Pelloponnesus.Te: 550. **Cable:** Radio Pyrgos – **L.P:** Dir. Gen: G. Psarros. St. Mgr: P. Leontaritis. Dir. Tec: C. Tamvakis, V. Solomos.
STATION: 1448kc 207.2m 3kW
HOME SCE: 05.00–13.00, 14.00–21.00, 00.00–03.00. N: 05.30,20.30. **English:** Thurs, Fri, Sun 01.00–01.30 – **ANN:** Greek: "Edhó Pýrgos, radiofonikós stathmós, dhitikís Pelloponníssou". English: "This is the P.B.S. in Western Pelloponnesus, Hellas" – **V.** by letter. Rp. Re. in English wanted. Records accepted – **F.PL:** Prgr.schedule, pennants free to overseas listeners. Newsletter.

VOICE OF AMERICA RADIO STATIONS IN GREECE

ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS:
M.W: Thessaloniki-A 791kc 379.2m 50kW: 04.55–06.30(Sun to 10.30), 10.30–13.20, 15.30–23.00 – **S.W:** Thessaloniki 35kW: 11.00–13.00, 14.30–22.30.

kc	m	kc	m	kc	m
5995	50.04	7205	41.64	9715	30.88
6185	48.50	9710	30.90	11895	25.22

04.55–06.30 (Sun 10.30) Greek (R. Thessaloniki).
10.30–13.20 Greek (R. Thessaloniki)
15.30–17.15 Greek (R. Thessaloniki)
17.15–17.30 Greek
17.30–18.00 Rumanian
18.00–18.30 Greek (R. Thessaloniki)
18.30–19.00 Bulgarian
19.00–19.30 Serbo-Croat
19.30–20.00 Bulgarian
20.00–20.30 Albanian
20.30–21.00 Rumanian
21.00–21.15 Serbo-Croat
21.15–22.15 Greek (R. Thessaloniki)
22.15–22.30 Serbo-Croat
22.30–23.00 Hungarian

Short Wave: See USA.
ANN: "This is the Voice of America Relay St. at Thessaloniki" – **INT-SIG:** Choir of brass playing 10 note version of "Columbia, the Gem of the Ocean". See USA – V. by QSL-card. No return postage required.

SEABORNE RADIO STATION ABOARD U.S.C.G.C. "COURIER" ISLAND OF RHODES

ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS:
M.W: Courier-A 1259kc 238m 150kW: 04.00–07.30, 16.00–22.30. **S.W:** Courier 35kW: 04.00–07.30, 14.00–22.30.

kc	m	kc	m	kc	m	kc	m
6015	49.88	6185	48.50	7130	42.08	9530	31.48

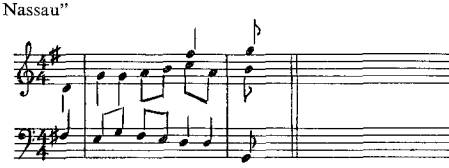
DAILY PROGRAMMES:
04.00–06.00 Arabic
06.00–07.30 **English**
14.00–14.30 **English**
14.30–15.00 Armenian
15.00–15.30 Georgian
16.00–16.30 **English**
16.30–17.00 Turkish
17.00–21.00 Arabic
21.00–22.30 **English**
ANN: "This is the Voice of America Relay St. at Rhodes" – **INT-SIG:** Choir of brass playing a 10 note version of "Columbia, the Gem of the Ocean". See USA – V. by QSL-card. No return postage required.

HOLLAND

L.T: GMT+1 h – **Pr.L:** Dutch.

NEDERLANDSCHE RADIO UNIE

ADDR: P.O. Box 150, Hilversum – **Cable:** Radiounie.
HOME SCE. Provided by the following broadcasting societies:
A.V.R.O: Algemeene Vereeniging Radio-Omroep, Head Office Amsterdam, Keizergracht 107. Studios: Hilversum, 's-Gravelandseweg 52. **L.P:** Chmn. (acting): W. Hoekstra LL.D. Man. Dir: H. de Wolf. Dir. Sound: J. M. van Overvest. Dir. TV: S. van der Zee. Adm. Dir: J. C. Bongenaar.
K.R.O: Katholieke Radio-Omroep: Head-Office: Amsterdam, Keizersgracht 151. Studios: Hilversum, Emmastraat 52 – **L.P:** Chmn: H. W. van Doorn LL.D. Secr: Dr. L. J. N. van der Hulst. Treasurer: Th. Loerakker. Man. Dir: Drs. A. J. J. v. D. Made. Dir. Sound: W. Wagenaar LL.D. Dir. TV: J. J. A. Casteleijns.
N.C.R.V: Nederlandsche Christelijke Radio Vereeniging, Schuttersweg 8, Hilversum – **L.P:** Chmn: A. B. Roosjen LL.D. Secr: G. A. Kieft. Man. Dir. Sound & TV: A. H. v. d. Veen LL.D.
V.A.R.A: Omroepvereeniging VARA, Heuvellaan 33, Hilversum – **L.P:** Chmn: J. A. W. Burger LL.D. Secr-Treasurer: J. Mulder. Prgr. Secr. (Sound): J. B. Broeksz. Prgr. Secr. (TV): J. W. Rengelink.
V.P.R.O: Vrijzinning Protestantse Radio-Omroep, s'-Gravelandseweg 65, Hilversum – **L.P:** Chmn: Dr. J. S. de Koning. Secr: Dr. E. D. Spelberg. Treasurer: Ir. K. Kooy. Dir: Drs. I. J. van Houte (Sound), Drs. J. A. van Nieuwenhuysen (TV). Secr: Drs. I. J. van Houte. Central addr. for Prgr. Publications: Central Bureau voor den Omroep in Nederland, Hilversum, P.O. Box 52 (for Sound & TV).
BOARD OF THE NEDERLANDSCHE RADIO-UNIE:
Chmn: A. B. Roosjen LL.D. Secr: J. Mulder. Treasurer: AA. Bakker LL.D. Members: J. B. Broeksz, J. C. Bongenaar, H. W. van Doorn LL.D, Drs. A. J. J. v. d. Made, J. M. van Overvest, A. H. v. d. Veen LL.D.
STATIONS:
Hilversum I: 746kc 402.1m 120kW – II: 1007kc 297.9m 120kW. **Rel:** Hengelo, Hoogezand, Hulsberg: 1594kc 188m 7.5kW.
FM-rel-st's: (I=rel. Hilversum I, II=rel. Hilversum II): Hoogezand 94.9Mc (I), 97.45Mc (II), Hulsberg 92.1Mc (I), 95.3Mc (II), Irnsum 93.95Mc (I), 98.95Mc (II), Lopik 92.6Mc (I), 96.8Mc (II), Markelo 91.4Mc (I), 96.2Mc (II), Mierlo 90.9Mc (I), 94.5Mc (II).
Telefunken AG, Germany, delivered studio equip. (recorders).
D.PRGR: Hilversum I & II: W: 06.00–23.00, Sun: 07.00–23.00. N: Hilversum I & II: 06.00(W), 07.00, 12.00, 21.30, 22.55. Hilversum I: W: 17.00(b), 18.00(a), Sun: 16.50(b), 18.45(a, c). Hilversum II: W: 17.00(a, c), 18.00(b), Sun: 16.50(a, c), 18.45(b).
(a) 1/1 64-1/1 65. (b) 1/5 64–1/9 64. (c) 1/9 64–1/1 65.
ANN: "Hier is de AVRO". "Hier is de KRO" etc – **V.** by QSL folder.
INT-SIG: Three first bars from the National Anthem "Wilhelmus van Nassau"



RADIO NEDERLAND WERELDOMROEP (non-comm.)

FI: By license payments – **ADDR:** R. Nederland, P.O.B. 222, Hilversum. Office: Witte Kruislaan 55, Hilversum. **Cable:** Mundivox. Te: 16151 – **L.P:** Dir. Gen: L. F. Tijmstra. Dep. Dir. Gen: C. J. Strop. Directors: Central Prgr.Sce: J. W. Acda. N. Sce: M. L. Snijders. Dutch Sce: F. Thors. Internat. Sce: H. J. P. J. van Eijndhoven. Transcription Sce: Lod. Prins. Dir. Tec: V. J. de Grijs. Producer "Happy Station" Prgr: Edw. Startz.
STATIONS: Lopik WO1 50kW; WO2, 3, 4 100kW; WO5 10kW.

kc	m	kc	m	kc	m	kc	m	kc	m
5980	50.17	9590	31.28	11755	25.52	15220	19.71	21480	13.97
5985	50.13	9630	31.15	11780	25.47	15425	19.45	21565	13.01
6020	49.83	9715	30.88	11800	25.42	15445	19.42	21625	13.87
6025	49.79	9730	30.83	11915	25.18	17775	16.88	21665	13.85
6035	49.71	9745	30.79	11935	25.14	17800	16.85	21715	13.82
6085	49.30	11710	25.62	11950	25.10	17810	16.84	25610	11.71
9525	31.50	11730	25.58	11955	25.09	17840	16.82	2604	11.51

Brown Boveri, Switzerland, delivered 100kW sw-tr. (Lopik).

OPERATION SCHEDULE: I=So.Africa; II=M.East, Europe; III=No.Africa; IV=No.America; V=New Zealand, We.No.America; VI=Australia; VII=Africa, F.East, Europe; VIII=So.East Asia, Pacific; IX=So.Asia, Europe; X=M.East; XI=Netherl. Antilles, Surinam; XII=Africa, Europe; XIII=We.Africa; XIV=So.America (South); XV=So.America (North), We.Indies; XVI=New Zealand, Australia; XVII=So.Asia; XVIII=No.America, Europe; XIX=No.Ea.Indonesia, Europe; XX=So.We.Indonesia; XXI=Mexico; XXII=Spain, No.Africa; XXIII=F.East, Europe; XXIV=Africa, So.Asia, Europe; XXV=So.America, Europe; XXVI=New Zealand, Australia, So.Asia; XXVII=M.East, F.East, Africa, Europe.

Language	Areas	Oct-April kc [1]	May-Oct. kc [2]
Afrikaans			
15.30–16.20 (W)	I	17775, 15425	17775, 15425
Arabic			
16.00–17.50 (D)	II	11730, 9590, 6020	11730, 9590, 6020
18.00–19.50 (D)	III	9590, 6085	9590, 6085
Dutch			
01.30–03.20 (D)	IV	9715, 6085	9715, 6085
06.00–07.00 (D)	V	11730, 9525	11730, 9525
08.00–09.00 (D)	VI	11730, 9525	11730, 9525
09.00–10.20 (Sun)	VII	21480, 15445, 6020	21480, 17775, 6020
12.00–13.20 (D)	VIII	15425, 11710	(21480), 17775, 15425
13.30–14.50 (D)	IX	15425, 11710, 6020	(21480), 17775, 15425 6020
16.30–16.50 (W)	X	11710, 9715	17810, 15425
17.00–17.20 (W)	XI	17810, 15425	21480, 15425
17.30–19.20 (D)	XII	15425, 9715, 6020	15425, 9715, 6020
20.00–20.20 (W)	XIII	9590, 6085	11950, 9590
21.00–22.50 (W)	XIV	(11730), 9590, 6035	15425, 11730
21.00–22.20 (Sun)	IV	9715, 6085	11800, 9715
23.00–01.20 (Sun)	XIV	9715, 6035	11800, 9715
23.00–01.20 (D)	XV	(11730), 9590, 6085, 6020	11730, (9590), 6085, 6020
English[3]			
01.30–02.20 (W)	IV	6035, 5985	9550, 5985
07.00–07.50 (W)	XVI	11730, 9525	11730, 9525
14.00–14.50 (W)	XVII	15445, 9590	17810, 15445

19.30–20.20 (W)	XII	11950, 9715, 6020	15425, 9715, 6020
21.30–22.20 (W)	XVIII	9715, 6085, 6020	11800, 9715, 6020
Indonesian			
12.00–12.50 (D)	XIX	17810, 15445, 6020	17810, 15445, 6020
13.00–13.50 (D)	XX	17810, 15445	17810, 15445
Spanish[3]			
00.30–01.20 (W)	XV	9715, 6035	11800, 9715
02.30–03.20 (W)	XXI	6035, 5985	9590, 5985
20.30–21.20 (W)	XXII	6085, 6035,	9715, 6085, 6020
23.30–00.20 (W)	XIV	9715, 6035	11800, 9715
Happy Station			
02.00–03.30 (Sun)	IV	6035, 5985	9590, 5985
06.00–07.25 (Sun)	XVI	9715, 6085	9715, 9630
10.20–11.50 (Sun)	XXIII	15425, 5980, 6020	15425, 5980, 6020
16.00–17.25 (Sun)	XXIV	15425, 11710, 6020	17775, 15425, 6020
21.00–22.30 (Sun)	XXV	9590, 6035	11730, 6085, 6020

Dutch by Radio (through February 1963)

01.30–01.50 (Sun)	IV	6035, 5985
07.30–07.50 (Sun)	XXVI	15445, 11730, 9715, 9630, 6020
15.30–15.50 (Sun)	XXVII	15445, 15425, 11710, 5980, 6020
22.30–22.50 (Sun)	XVIII	9715, 6085

[1] the freq's mentioned are for the Oct–and/or Nov. schedule.
[2] the freq's mentioned are for the May–and/or Sept. schedule.
[3] In addition prgr's entitled "European Review" (retransmitted by No. & So.American & So.African st's) are broadcast as follows (Tues & Fri only): **English**: to No.Am: 15.30–15.45, 19.15–19.30; to So.Africa: 15.30–15.45. Spanish (to So.Am): 15.00–15.15, 19.40–19.55, 20.05–20.20. Freq. choice, in broadc. bands, after consultation with the station receiving this prgr.

PROGRAMME SCHEDULE

NATIONAL MUSIC: The Amsterdam Concertgebouw Orchestra: In Dutch, English, Spanish: Thurs: 18.10–19.10, 21.40–22.40, Fri: 00.10–01.10, 02.10–03.10. **Indonesian:** Sun: 12.10–12.40, 13.10–13.40. **Other prgr's of Dutch music: Afrikaans:** Wed: 16.00–16.19. **Arabic:** 17.05, 19.05. **English:** Mo: 07.12, 14.12, 19.42, 21.42, Tues: 01.42. **Indonesian:** Wed: 12.30, 13.30. **Spanish:** Mo: 20.43 (2nd Mo only), 23.52, Tues: 00.52, 02.52.

NEWS, COMM: Afrikaans: W: 15.30. **Arabic:** D: 16.00, 17.00, 18.00, 19.00. **Dutch:** 01.30, 06.00, 08.00, 12.00, 13.30, 16.30, 17.00, 17.30, 21.00, 23.00. **English:** W: 07.00, 14.00, 19.30, 21.30, 01.30. **Indonesian:** D: 12.00–12.10, 13.00–13.10. **Spanish:** W: 20.30, 23.30, 00.30(exc. Mo), 02.30(exc. Mo).

LISTENERS REQUEST PRGR: Afrikaans: Sat 15.41. **Arabic:** Fri: 16.20, 18.20. **Dutch:** Fri: 06.30, 08.30, 18.00, 21.30, 23.30, Sun: 12.35, 14.05. **English:** Tues: 07.12, 14.12, 19.42, 21.42, Fri 01.42. **Indonesian:** D: 12.20, 13.20; every 2nd, 4th and 5th Tues at 12.18, 13.18. **Spanish:** Thurs: 20.43, 23.43, Fri: 00.43, 02.43.

MAILBAG: Afrikaans: Sat 15.41. **Arabic:** Sun, Thurs: 16.40, 18.40. **Dutch:** (fortnightly) Fri: 06.50, 08.50, 13.05, 14.35, 18.30, 22.00, 00.00, Sun 02.30. **English:** Wed (fortnightly): 07.32, 14.32, 20.02, 22.02, Thurs (fortnightly) 02.02. **Indonesian:** Sun: 12.20, 13.20. **Spanish:** Tues (fortnightly): 21.00, Wed: 00.00, 01.00, 03.00. **Dutch Language Lessons** (as from 1 Sept.): Sun: 07.30, 12.00, 20.30, 01.30.

DX-PROGRAMMES: English: "DX Juke Box" Thurs: 07.12, 14.12, 19.42, 21.42, Fri 01.42.

PRODUCTION "HAPPY STATION": The 5 "Happy Station" Sun prgrs, 4 in English and 1 in Spanish and Portuguese, bring a wide range of carefully selected music catering for all tastes. Short features of universal interest, descriptive commentaries and educational quizzes supplement the 90 min. prgrs. In addition each transmission carries an international "mailbag" with calls to all parts of the globe.

The "Happy Station" prgr. **EVERY SUNDAY:** (for frequencies see operating sched.): 06.00–07.30 Au/NZ/Pacific, 10.30–12.00 Europe & Far East, 16.00–17.30 Eu/Af/So.Asia, 21.00–22.30 So.Am/Spain & Portugal, 02.00–03.30 No.Am. (Sun night to Mo).

RELAY SERVICE twice weekly news-behind-the-news prgr. from correspondents in Eur. capitals for stations in U.S. and Latin-America.

ANN: Dutch: "Hier R. Nederland in Hilversum". **E:** "This is the International Service of R. Nederland in Hilversum, Holland". **Ind:** "Disini Hilversum Siaran Indonesia R. Nederland". **Sp:** "Aqui R. Nederland, Hilversum, Holanda". **Arabic:** "Huna Hilversum – al idha'atu'l hulandiya bi'l-lughati'l-Arabiya". **Afrikaans:** "Dit is R. Nederland Wereldomroep in Hilversum, Holland".

GENERAL INT-SIG: Old Dutch folk song called: "Merk toch hoe sterck" played on carillon or celeste – V. by QSL-card.

PUB: Prgr. bulletin in Dutch, English, Spanish, Arabic, Afrikaans. – A booklet on Sw. aerial construction in Dutch, English, Spanish, Indonesian and Arabic. Also a diagram for building a sw. converter in Dutch, English. "Some useful hints" on sw. reception in English and Spanish. All the pub. are sent free of charge on application –

TRANSCRIPTION SERVICE a free sce. to foreign sts. Issues complete prgr. about Holland and Dutch life both informative and musical, and adapted to suit the requirements of the areas served.

HUNGARY

L.T: GMT+1 h – **Pr.L:** Hungarian.

MAGYAR RADIO ES TELEVIZIO (Go.)

ADDR: Brody Sandor-S.U. 5-7, Budapest VIII. **Cable:** Magyarrádió. **Te:** 338-330. **Telex:** 6-67 – **L.P:** Pres, Gen. Mgr: I. Tömpe. Vice Pres: Dr. I. Hárs, Dr. K. Kiss. Dir. Adm: G. Mike. Dir. Tec: L. Hermann. Dir. Foreign Rel: Mrs. M. Solymar, dr.

HOME SCE:	kc	m	kW
Kossuth, Budapest[1]	539	556.5	135
Petöfi II, Budapest[2]	872	344.0	5
Petöfi I, Szolnok[2]	1187	252.7	135
Nyiregyháza[2]	1340	223.8	25
Szombathely[2]	1340	223.8	25
Pécs[2]	1340	223.8	15
Györ[2]	1349	223.3	0.4
Szolnok[2]	1349	223.3	0.4
Miskolc[2]	1594	188.2	15
Magyaróvár[2]	1594	188.2	0.4
Balatonszabadi[2]	1594	188.2	15

AKG, Austria, delivered studio equipment (recorders, microphones).

[1] W: 03.30–00.30, Sun: 05.00–00.30 – [2] W: 04.00–07.10, 13.00–22.15, Sun: 05.30–22.15. Reg st's: rel. R Petöfi exc. for reg. prgr's at 18.00–19.00 (Pécs 17.00–20.00, Györ 19.00–20.00, Sun also 09.00–10.00)

R. Kossuth: N, Wrp: W: 03.30, 04.30, 06.00, 09.00, 11.00, 14.00, 16.00, 19.00, 21.00, 23.00. Sun: 05.00, 07.00, 11.00, 16.00, 19.00, 21.00, 23.00. **R. Petöfi: N:** W: 05.00, 07.00, 15.00, 17.00, 18.00, 20.00, 22.00. Sun: 22.00. **FM:** Budapest 66.62Mc 2kW – Pecs 69.02Mc, 2kW: 17.00–21.00

ANN: "Kossuth Radio, Budapest – Petöfi Radio, Budapest".

FOREIGN SERVICE

STATIONS: 1250kc=135kW, others 15/100kW.

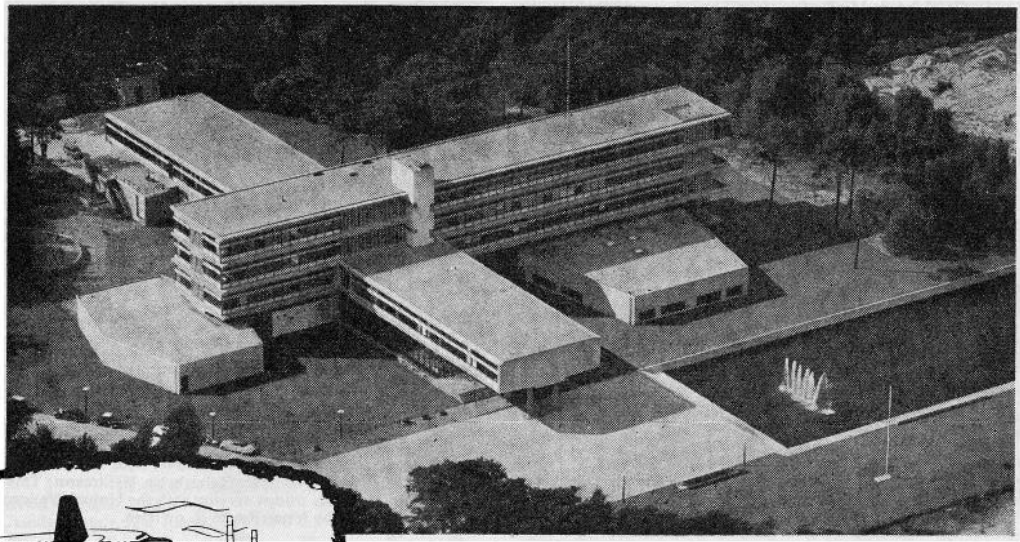
kc	m	kc	m	kc	m	kc	m
1250	240.0	6234	48.10	9833	30.51	11915	25.18
5900	50.84	7215	41.58	11910	25.19		

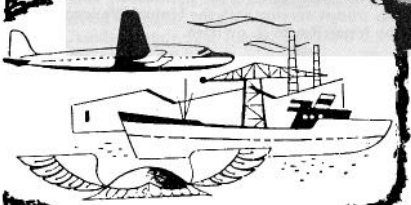
TO EUROPE	3/11–2/3	3/3–3/5, 7/9–1/11	4/5–6/9
English:	kc	kc	kc
19.30–20.00	7215, 6234	7215, 6234	9833, 7215
22.00–22.30	7215, 6234, 5900	7215, 6234, 5900	9833, 7215, 6234
German:			
18.00–18.30[1]	1250	1250	1250
19.45–20.00	1250	1250	1250
21.30–21.45	1250, 6234	1250, 6234	1250, 6234
22.15–23.00[1]	1187	1187	1187
12.00–13.00*	1250, 6234	1250, 6234	1250, 6234
13.30–14.00*	7215, 6234, 1250	9833, 7215, 6234, 1250	9833, 7215, 1250
Greek:			
11.45–12.00W	9833, 7215	9833, 7215	11915, 9833
12.00–13.00*	9833, 7215	9833, 7215	11915, 9833
15.00–16.00**	9833, 7215	9833, 11915	11915, 9833
17.00–17.30	9833, 7215, 6234, 1250	9833, 7215, 6234, 1250	9833, 7215, 6234, 1250
19.30–19.45	1250	1250	1250
20.00–20.15	7215, 6234, 5900, 1250	7215, 6234, 5900, 1250	9833, 7215, 6234, 1250
Hungarian:			
05.00–05.15	9833, 7215, 6234	11915, 9833, 7215	11915, 9833, 7215
11.00–11.15W	11915, 9833	11915, 9833	11915, 9833
14.00–16.00*	9833, 7215, 6234, 1250	9833, 7215, 6234, 1250	11915, 9833, 7215 1250
19.00–19.30	7215, 6234, 1250	1250	9833, 7215, 1250
20.30–21.30	7215, 6234, 5900, 1250	7215, 6234, 1250,	9833, 7215, 6234, 1250
Italian:			
11.30–11.45W	9833, 7215	9833, 7215	9833, 7215
13.00–13.30*	9833, 7215, 6234	9833, 7215, 6234	9833, 7215, 6234
17.30–18.00	7215, 6234, 5900, 1250	7215, 6234, 1250	9833, 7215, 6234, 1250
20.15–20.30	6234, 1250	6234, 1250	7215, 1250
21.45–22.00	6234, 1250	6234, 1250	7215, 1250
Spanish:			
20.15–20.30	7215, 5900	7215, 5900	9833, 6234
21.30–22.00	7215, 5900	7215, 5900	9833, 6234
TO NEAR EAST			
Arabic:			
14.00–15.00***	9833, 7215	11915, 9833	11915, 9833
16.00–16.30***	9833, 7215, 6234	9833, 7215	11915, 9833, 7215
18.00–18.30	7215, 6234, 5900	7215, 6234	11915, 9833, 7215
Turkish:			
10.00–12.00*	11915, 9833, 7215	11915, 9833, 7215	11915, 9833, 7215
16.30–17.00	9833, 7215, 6233, 1250	9833, 7215, 6234, 1250	11915, 9833, 7215 1250
18.30–19.00	7215, 6234, 5900, 1250	7215, 6234, 5900, 1250	9833, 7215, 6234, 1250

DUTCH WORLD BROADCASTING SYSTEM

RADIO NEDERLAND

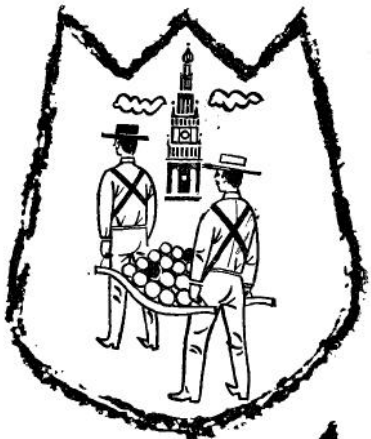
HILVERSUM-HOLLAND





daily broadcasts in

AFRIKAANS
ARABIC
DUTCH
ENGLISH
INDONESIAN
SPANISH



news, commentaries, actualities, feature-programmes, music - 100 K/W transmitters - 13, 16, 19, 25, 31, 49 metre bands - programme bulletins free on application.

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TRANSCRIPTION SERVICE

for free recordings of

- serious and light music
- entertainment-programmes
- feature spots, coverages
- topical talks, interviews

All transcription programmes are adapted to suit the requirements of the areas served

RELAY SERVICE

twice a week for U.S. and Latin American stations

TO NO. AMERICA
English:

00.30–01.00	9833, 7215, 6234	9833, 7215, 6234	11910, 9833, 7215
01.30–02.00	9833, 7215, 6234	9833, 7215, 6234	11910, 9833, 7215
03.00–03.30	9833, 7215, 6234	9833, 7215, 6234	9833, 7215
04.30–05.00	9833, 7215, 6234	9833, 7215, 6234	9833, 7215, 6234
03.30–04.00[2]	9833, 7215, 6234	9833, 7215, 6234	9833, 7215, 6234

Hungarian:

00.00–00.30	9833, 7215, 6234	9833, 7215, 6234	11910, 9833, 7215
02.00–03.00	9833, 7215, 6234	9833, 7215, 6234	11910, 9833, 7215
04.00–04.30	9833, 7215, 6234	9833, 7215, 6234	9833, 7215, 6234

TO C. AMERICA
Spanish:

01.00–01.30	9833, 7215, 6234	9833, 7215, 6234	11910, 9833, 7215

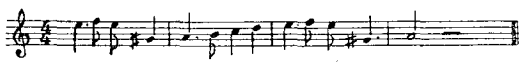
TO SO. AMERICA
Hungarian:

23.00–23.30	9833, 7215	9833, 7215	11910, 9833

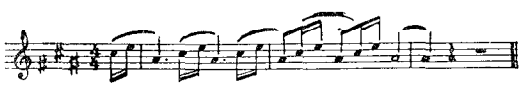
Spanish:

23.30–24.00	9833, 7215	9833, 7215	11910, 9833

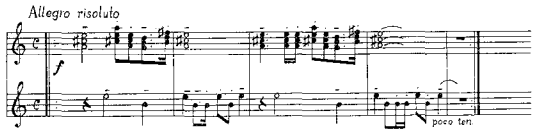
* Sun. ** Sat. *** Fri. [1] for Austria. [2] Musical prgr.
ANN.: E: "This is Budapest, Hungary" – **INT-SIG:** R. Kossuth: (3 clarinets, 1 bass clarinet)



R. Petőfi: (3 flutes, 2 violins, 1 cello, 1 doublebass)



Foreign Service: Excerpts from the Suite "1848" by T. K. Polgar (3 trumpets, 2 cornets)



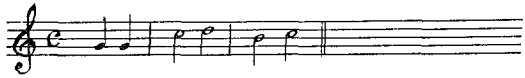
V. by QSL-card and letter. Records accepted – **PUB:** "Rádió és Televizió Ujság" (weekly).

ICELAND

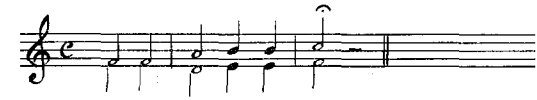
L.T: GMT÷1 h – (Su=GMT) – Pr.L: Icelandic.
ICELAND STATE BROADCAST SERVICE – RIKISUTVARPID (Go.)
ADDR: P.O. Box 120 Reykjavik. **Cable:** Utvarp.
L.P: Dir. Prgr. Council: B. Groendal. Dir. Gen: V. Th. Gislason. Dir. Adm: S. Thordarson. Dir. Prgr: A. Bjoernsson.
HOME SCE: W 09.00–11.00, 13.00–01.00. Sun 09.30–01.00.

STATIONS:	kc	m	kW		kc	m	kW
Reykjavik TFU	209	1435	100	Lón	1484	202.2	0.02
Akureyri	737	407.1	5	Raufarhöfn	1484	202.2	0.02
Eidar	665	541.2	5	Eskilfjördur	1510	198.5	0.02
Hoefn	611	491.0	1	Alftafjördur	1510	198.5	0.02
Breiddalsvik	1412	212.0	0.02	Thorshöfn	1510	198.5	0.02
Neskaupstadur	1412	212.0	0.02	Reydarfjördur	1520	197.4	0.02
Djupivogur	1484	202.2	0.02	Stödvarfjördur	1545	194.2	0.02
Fáskrúdsfjördur	1484	202.2	0.02	Reykjavik	11780	25.47	20

The Marconi Company Ltd, GB: delivered 5kW tr's (Akureyri, Eidar), 20kW tr. (Reykjavik).
Brown Boveri, Switzerland: delivered 100kW tr. (Reykjavik).
Telefunken AG, Germany: delivered studio equip. (recorders).
Kathrein Antennen, Germany: FM-Antennas.
FM: Reykjavik: 94Mc 0.9kW, 98Mc 0.015kW, Raufarhöfn 91Mc 0.1kW.
N: W 09.30, 11.10, 13.25, 16.00, 18.00, 20.30, 23.00. Sun 10.00, 13.25, 20.30, 23.00.
FOREIGN SERVICE in Icelandic:
On 11780kc: D 20.30–22.00. Sun also 13.00–15.00.
ANN: "Útvarp Reykjavik" – V. by QSL-card. Rp.
INT-SIG: Home Service:



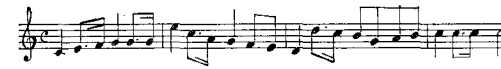
Foreign Sce:



AFRTS: See USA.

IRELAND

L.T: GMT (Su. GMT+1 h) – Pr.L: Irish, English.
RADIO EIREANN (Statutory Corporation)
FI: By state, license payments and adv – **AD:** 16 h per week.
ADDR: G.P.O., Dublin. **Cable:** Broadcasting. **Te:** 42981 – **L.P:** Chmn: E. Andrews. Dir. Gen: K. C. Mc. Court. Head of Management: J. A. Irvine. Contr. of Prgr: R. O. Faracháin. Dir. of Eng: P. G. Parker.
STATIONS: Athlone 566kc 530m 100kW – Dublin 1250kc 240m 5kW – Cork 1250kc 240m 5kW.
Brown Boveri, Switzerland: delivered 5kW mw-tr's (Cork, Dublin), 100kW tr. (Athlone).
Telefunken AG, Germany: delivered studio equip. (recorders).
AKG, Austria: delivered studio equip. (recorders, microphones).
HOME SCE: W 08.00–10.05, 12.55–15.00, 17.00–23.30. Sun 10.25–11.15, 12.30–23.30 – **N: English** 08.00 (W), 09.00 (W), 10.00, 13.30, 18.30, 22.15. **Irish** 18.01, 22.00 (W) – **Wrp:** English 08.10 (W), 09.10 (W), 10.25 (Sun), 12.55 (W), 17.55, 18.30, 22.15, 23.30 – **Irish Music:** Sat, Sun 22.30–23.00.
ANN: "Radio Eireann" – **INT-SIG:** Celeste and Harp playing 4 bars of Irish Air "O Donnell Abu" – V. by letter. **PUB:** RTV Guide.



RADIO OGLAIGH NA H-EIREANN (Military) – **ADDR:** Collins Barracks Dublin 7, **Te:** 76326 – **L.P:** St. Mgr: G. Newman. Dir. Tec: D. Butler – **STATION:** 17544kc 1kW: Mo, Wed, Fri 16.30–18.30 in Irish or English – **ANN:** "R. Oglaigh Na H-Eireann; This broadc. is beamed to the Irish troops serving with the United Nations Forces in the Congo" – V. by letter Re. in E. or Irish.

ITALY

L.T: GMT+1 h – Pr.L: Italian.
RAI – RADIOTELEVISIONE ITALIANA
(State Service granted by public act to RAI)
FI: By license payments and adv – **AD:** 10% of broadc. time for radio. For TV: Nat. Prgr: 6.7%, 2nd Prgr.: 3.9%.
ADDR: Via del Babuino 9, Roma. **Cable:** Raidirro. **Te:** 664.
L.P: *Pres: Prof. Novello Papafava. Vice Pres: Hon. Luigi Bennani.* Man. Dir: Ing. Marcello Rodino. Dir. Gen: Dr. Ettore Bernabei. Vice Dir. Gen: Dr. Marcello Bernardi. Gen. Secr. (Dir. For. Rel.): Dr. Gian Franco Zaffrani. Dir. Adm: Dr. Bruno Vasari. Dir. Prgr. (Radio): Maestro Giulio Razzi. Dir. Prgr. (TV): Dr. Sergio Pugliese. Dir. Radio & TV Inf. Sce.s: Dr. Luigi Beretta. Dir. Tec. Radio: Eng. Gino Castelnuovo. Co. Dir: Eng. Edoardo Cristofaro. Dir. Tec. TV: Ing. Gino Orsini. Co. Dir. Gen. Aff: Dr. Gregorio Pozzilli. Dr. Aldo Passante. Chief Pers: Dr. Marcello Severati. Dir. "Radiocorriere": Prof. L. Guaraldo.
HOME SCE: No powers indicated owing to pending changes.

MEDIUM WAVES	Nat. prgr. kc	2 prgr. kc	3 prgr. kc		Nat. prgr. kc	2 prgr. kc	3 prgr. kc
Aosta 1)		1115		Udine 5)	1331	1448	
Alessandria 1)		1448		Trieste A 5)	980		
Biella 1)		1448		(autonoma in Sloveno)			
Cuneo 1)		1448		Genova 6)	1331	1034	1367
Torino 1)	656	1448	1367	La Spezia 6)	1578	1448	
Como 2)		1448		Savona 6)		1484	
Milano 2)	899	1034	1367	S. Remo 6)		1034	
Sondrio 2)		1448		Bologna 7)	1331	1115	1367
Bolzano 3)	656	1484	1594	Arezzo 8)		1484	
Bressanone 3)		1484	1594	Carrara 8)	1578		
Brunico 3)		1484	1594	Firenze 8)	656	1448	1367
Merano 3)		1484	1594	Livorno 8)	1061		1594
Trento 3)	1331	1448	1367	Pisa 8)		1115	1594
Belluno 4)		1448		Siena 8)		1448	1367
Cortina 4)		1448		Perugia 9)	1578	1448	
Venezia 4)	656	1034	1367	Terni 9)	1578	1448	
Verona 4)	1578	1448	1367	Ancona 10)	1578	1448	
Vicenza 4)		1484		Ascoli P. 10)		1448	
Gorizia 5)	1578	1484		Roma 11)	1331	845	1367
Trieste 5)	818	1115	1594	Aquila 12)	1578	1484	

Campob. 12)	1578	1448		Potenza 15)	1578	1448	
Pescara 12)	1331	1034		Catanzaro16)	1578	1448	
Teramo		1484		Cosenza 16)	1578	1484	
Avellino 13)		1484		Reggio C 16)	1331		
Benevento 13)		1448		Agrigento17)	1578	1448	
Napoli 13)	656	1034	1367	Catania 17)	1331	1448	1367
Salerno 13)		1448		Caltanis-			
Bari 14)	1331	1115	1367	setta 17)	566	1448	
Brindisi 14)	1578	1484		Messina 17)		1115	1367
Foggia 14)	1578	1448		Palermo	1331	1448	1367
Leccc 14)	1578	1448		Cagliari 18)	1061	1448	1594
Taranto 14)	1578	1448		Nuoro 18)	1578	1484	
Matera 15)	1578	1448		Sassari 18)	1578	1448	1367

FM: 384 st's in Nat, 2nd and 3rd Prgr.
1) Piemonte. 2) Lombardia. 3) Trentino Alto Adige. 4) Veneto. 5) Venezia, Giulia, Friuli. 6) Liguria. 7) Emilia, Romagna. 8) Toscana. 9) Umbria. 10) Marche. 11) Lazio. 12) Abruzzi, Molise. 13) Campania. 14) Puglia. 15) Basilicata. 16) Calabria. 17) Sicilia. 18) Sardegna.

SHORT WAVES:
Nat. Prgr: Caltanissetta 6060kc 49.50m – 9515kc 31.53m.
W 05.30–13.00, 13.55–22.30. Sun 05.30–22.30.
N, Wrp: 06.00 (W), 07.00, 12.00, 13.00, 16.00 (W), 19.30, 22.15, 23.00.
Rlg: Sun 06.45 (Evangelistic), Sun 08.30 (Mass from R. Vaticana) – **Folklore Music:** 16.30 – **L.L:** 05.35 (Spanish: Mo, Wed, Fri; Portuguese: Tues, Thurs, Sat), 16.20 (French: Mo, Thurs; English: Tues, Fri; German: Wed, Sat).
2. Prgr: Caltanissetta 7175kc 41.81m W 06.45–11.20, 12.00–21.45, Sun 06.00–13.00, 13.30–21.45.
N, Wrp: 08.00, 12.30, 13.30 (W), 14.30 (W), 17.30 (W), 19.00, 20.30, 22.00.
3rd Prgr: Roma 3995kc 75.09m 17.30(Sun 16.00)–23.00 – **N:** 20.00.
3rd Network (on same frequencies as 3rd prgr): D 07.00–07.50 (Broadcasts for Tourists in French, German, English), 09.00–13.15.
Night Programme (Notturno dall Italia) on 845, 6060, 9515kc: 22.05–05.30. 7 h of music, parade: songs, melodies, opera music, dance music, folklore songs, symphony, operetta and jazz, with short news-bulletins in four languages (English, French, German, Italian) every h. On Sundays: "Holiday for a Continent" musical divertissement presented in Italian, English, French and German.

FOREIGN SERVICE
RADIO ROMA: 50/60/100kW.
ADDR: Casella Postale 320, Rome. Te: 489.171.

kc	m	kc	m	kc	m	kc	m
566	530.0	6060	49.50	9630	31.15	15325	19.58
845	355.0	7235	41.47	9710	30.90	15400	19.48
1115	269.0	7275	41.24	11805	25.41	17740	16.91
5960	50.34	7290	41.15	11810	25.40	17770	16.88
5965	50.29	9515	31.53	11905	25.20	17800	16.85
5985	50.13	9575	31.33	15120	19.84	21560	13.91
6010	49.92						

EUROPEAN SERVICE "Rome Calling Europe"

Albanian	**kc**	**Polish**	**kc**
13.30–13.45	5960, 7290	13.00–13.15	6010, 7235, 9630
17.45–18.00	6010, 7235	17.35–17.45	6010, 7235
		20.10–20.25	5960, 7275
Bulgarian		**Portuguese**	
20.55–21.15	5985, 6010, 7290	21.35–22.00	5960, 7275
Czech		**Rumanian**	
13.15–13.30	6010, 7235, 9630	13.00–13.15	5960, 7290
18.25–18.35	5960, 7275, 9575	20.35–20.55	5985, 6010, 7290
20.25–20.40	5960, 7275	**Russian**	
Danish/Swedish*		03.30–03.45	6010, 7275, 9575, 9630, 11810
17.35–17.55	5960, 7275, 9575		
English		14.05–14.20	7235, 9575
18.20–18.40	6010, 7235	21.15–21.35	5960, 7275
French		**Serbian**	
18.00–18.20	6010, 7235	10.10–10.25	6010, 7275
German		21.15–21.35	5985, 6010, 7290
10.25–10.40	6010, 7290	**Slovak**	
13.30–13.45	6010, 7235, 9630	13.45–14.00	6010, 7235, 9630
18.10–18.25[1]	5960, 7275, 9575	21.00–21.15	5960, 7275
20.40–21.00	5960, 7275	**Slovene**	
Greek		13.45–14.00	5960, 7290
19.05–19.25	5960, 7275	**Spanish**	
Hungarian		22.00–22.25	5960, 7275
13.15–13.30	5960, 7290	**Turkish**	
21.35–21.55	5985, 6010, 7290	19.25–19.50	5960, 7275
Italian		**Ukrainian**	
15.35–15.55	5960, 6010, 7290	18.40–19.00	6010, 7235
17.35–17.55[2]	5960, 7275, 9575	**Belgian/Esperanto/English & French****	
Lithuanian		17.55–18.10	5960, 7275, 9710
19.50–20.10	5960, 7275		

* **Danish:** Tues, Thurs, Sat. **Swedish:** Mo, Wed, Fri – ** **For Belgium (F):** Sat. **Esperanto:** Tues, Wed, Fri. **E and F:** Mo, Thurs. **Italian:** Sun.
[1] for Austria – [2] Sun.

GENERAL OVERSEAS SERVICE

AU, NZ, F.EAST			
English	**kc**	**English**	**kc**
09.00–09.40	11810,15400,17800	09.20–09.40	7290, 9575
Italian		**French**	
06.50–08.55	9710, 11810, 11905 15325, 17800	09.00–09.20	7290, 9575
		Italian	
20.00–20.30	7290, 9575, 9710	10.45–11.25	17770, 21560
22.00–22.25	7290, 9575, 9710	16.00–17.30	6010, 9575, 15325, 17770, 21560
SO.EA.ASIA & THE FAR EAST			
Chinese		**Persian**	
09.45–10.05	9575, 11905	14.25–14.45	11905, 15400
English, French		**C. & SO. AMERICA**	
10.45–11.25	9630, 11905, 17800	**Italian**	
Indonesian		18.40–19.00	9710, 11810, 11905
09.45–10.05	15400,17800,21560	22.30–00.30	{5960, 6010, 9575,
Japanese		01.15–03.05	{9630, 9710
10.10–10.40	9575, 9630, 11905	**Portuguese**	
SOUTH AFRICA		00.30–00.50	6010, 9630, 9710
English		**Spanish**	
15.35–15.55	17770, 21560	00.50–01.10	6010, 9630, 9710
Somali		03.05–03.25	6010, 9630, 9710
14.50–15.30	15325, 21560	**NO. AMERICA**	
SO. ASIA		**English**	
Hindi		00.30–00.50	5960, 9575
15.15–15.30		03.05–03.25	5960, 9575
Urdu	11905, 15400,	**French**	
14.50–15.05	17770	00.50–01.10	5960, 9575
Bengali			
15.05–15.15		**SPECIAL PRGR'S ITALIAN**	
AFRICA & NEAR EAST		**Press Review or Dictation News:**	
Arabic		07.50–08.55*	9710, 11810, 11905 15325, 17800
06.25–06.45	5965, 6010, 7290, 9575, 11905	14.05–14.45**	17740,17800,21560
12.25–12.55	6010, 7290, 9630, 11810, 15400		
19 05–19.55	6010, 7290, 9575		

* for Au/NZ. and F.E – ** for No. & So. America.

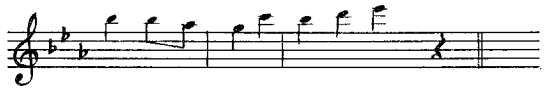
ANN: "RAI – Radiotelevisione Italiana – Stazioni del (programma Nazionale, Secondo Programma, Terzo Programma)". Night Prgr: "RAI – Radiotelevisione Italiana – Stazione di Roma 2 che trasmette sulla lunghezza d'onda di m. 355 pari a kc 845" – "Notturno dall' Italia" – **INT-SIG:** Bird chirping – V. by QSL-card.

LUXEMBOURG

L.T: GMT+1 h – **Pr.L:** Luxembourgian, French, Flemish, English, German.

RADIO LUXEMBOURG (Comm.)
FI: By adv – **ADDR:** Compagnie Luxembourgeoise de Telediffusion, Villa Louvigny, Luxembourg. **Cable:** Radio Luxembourg. **Te:** 25881. **L.P:** Dir. Gen: M. Felten. Dir. Prgr: J. Luc. Secr. Gen: G. Graas.
STATIONS: R. Luxembourg I and II (System: C.S.F):
I 233 kc 1287 m 500 kW – 6090 kc 49.26 m 50 kW d.*
II 1439 – 208 – 350 – – 153350 – 19.54 – 5 – d.
FM: 92.5Mc 50kW (relay 1439kc), 97Mc 100kW.
Telefunken AG, Germany, delivered studio equip. (recorders).
Kathrein Antennen, Germany, delivered FM-antennas.
HOME SERVICE in Luxembourgian:
On 92.5Mc: W 11.00–13.00, 17.30–21.00. Sun 09.00–21.00. **N, Comm:** D 11.45, 17.40. **Nat. Music:** Sun 20.00–21.00. Sat 18.00–18.25 – **On 1439kc:** N, Comm: D 17.40.
FOREIGN SERVICE:
On 233/15350kc in French: D 04.40(Sun 05.59)–23.00.
N, Comm: W 05.10, 06.00, 06.30, 07.00, 07.30, 08.00, 09.00, 10.00, 11.23, 12.00, 13.00, 14.00, 15.00, 17.00, 18.15, 19.30 (Mo, Tues, Thurs), 19.35 (Fri), 19.40 (Wed), 19.45 (Sat), 20.00 (Thurs), 20.15 (Mo), 20.30 (Tues, Fri), 20.35 (Wed, Sat), 21.30, 22.55. Sun 06.30, 07.00, 08.00, 09.00, 10.00, 10.55, 12.00, 18.15, 21.00, 22.55 – **Wrp:** D 18.15 – **T.S:** 05.29 (Sun 06.29), 12.00, 18.14.
Rlg. Prgrs: French: W 04.40–04.49.
On 1439/6090kc in Flemish, German, English:
Flemish: W 04.45(Tues, Wed, Thurs 04.30)–12.00. Sun 04.45–13.00 – **N, Comm:** W 06.00, 08.00, 09.00, 10.00, 11.00, 11.55. Sun 07.00, 08.00, 12.00 – **German:** D 12.00(Sun 13.00)–17.00.
German on 97Mc: 05.00(Sun 06.00)–12.00, 17.30–21.00 – **N:** W 17.35.
English: 18.00–02.00.
Rlg. Prgrs. (on 1439/6090kc): **German:** Sun 04.45–05.45, Mo 04.45–05.25, Tues 04.45–05.20, Wed 04.45–05.55, Thurs 04.45–05.40, Fri, Sat 04.45–05.20 – **Flemish:** Sun 05.45 – **Polish:** Mo 05.25–05.45 – **French:** Mo 05.45–05.55, Tues, Thurs, Sat 05.40–05.55, Fri 05.20–05.35 – **Russian:** Tues 05.20–05.40 – **Hungarian:** Sat 05.20–05.40.
INTERNATIONAL PROGRAMME: 23.00–02.00 in French, German on 233/6090/15350kc 97Mc.

ANN: F: "Ici R. Luxembourg". E: "Here R. Luxembourg". Fl: "Hier is R. Luxembourg". G: "Hier R. Luxembourg". Luxembourgian: "Hei ass R. Letzeburg".
INT-SIG: Melody played on piano: A Luxembourgian popular song.



V. by letter.

MALTA (State of)

L.T: GMT+1 h – Pr.L: English, Maltese.

THE MALTA BROADCASTING AUTHORITY an indep. Authority, to regulate and supervise all sound and television broadc. in Malta) – ADDR: 12, Old Treasury Street, Valetta. Cable: Broadcasts – L.P: Chmn: The Hon. Mr. E. G. Arrigo, C.B.E. Chief Executive: J. Manduca.

FORCES BROADCASTING SERVICE:
ADDR: F.B.S. Malta, British Forces Post Office 51 – L.P: Officer in Charge: J. D. Hale. Dir. Tec: P. F. Blanchette.
STATION: 1425kc 211m 1kW.
D.PRGR: in English: 16.45(Sun 13.00)–22.00. N: 18.00 (BBC). Wrp: 18.15, 22.00 – ANN: "This is the Forces Broadc. Sce, Malta". V. by QSL-card. Rp. Records accepted – PUB: "Listen" (weekly). Supplied free to Sce. personnel in Malta.

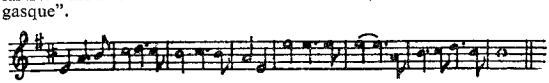
CENTRAL MEDITERRANEAN RELAY (Relays of BBC Arabic Sce.) for Libya/Tunisia: On 1178kc 254.5m 10kW.
Arabic: 03.45–05.45, 11.00–21.00.

REDIFFUSION (MALTA) LTD. (Priv. Comm.)
FI: from wired subscribers and adv – ADDR: Rediff. House, St. Luke's Road, Guardamangia. Cable: Rediffusion. Te: Central 25051 – L.P: Gen. Mgr: E. A. Hammilton-Hill, O.B.E. Eng. in charge: A. J. Bartolo.
D.PRGR: Prgr. I: 06.00–23.00. Mainly BBC. (GOS.) with locally produced substitutions – Prgr. II: Maltese: 05.00–22.00. Local prgr's.
The Marconi Company Ltd, GB. delivered: 5kW tr, ant, studio-equip.

MONACO

L.T: GMT+1 h – Pr.L: French.

RADIO MONTE CARLO (Comm.)
ADDR: 16, Boulevard Princesse Charlotte, Monte Carlo. Cable: Radio Carlo. Te: 30.52.52 – L.P: Dir. Gen: J. Gondre. Dir. Tec: M. Auvray.
STATIONS: 1466kc 205m 400kW – 6035kc 49.71m 30kW – 7135kc 42.05m 30kW – FM: 93.5Mc 30kW.
HOME SCE: D 05.30–23.05(Sat 24.00) – N: From 06.00 to 18.00 every h on the h exc. 12.00, 18.30, 21.15, 23.00. Wrp: 07.00, 08.00, 09.00, 09.25, 12.00, 13.00, 19.30, 22.15, 23.00.
FOREIGN SCE: A 100kW sw-tr. in the 49, 41, 31, 25, 19m.b. (see Trans World Radio).
ANN: "Ici Monte Carlo" – INT-SIG: "L'Hymne National Monégasque".

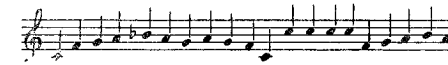


V. by letter – PUB: Weekly prgr.sched.

TRANS WORLD RADIO
Dedicated excl. to broadc. the Gospel of our Lord and Saviour, Jesus Christ and is maintained by free will contributions – Trans World Radio's prgr's are aired in conjunction with R. Monte Carlo.
ADDR: P.O. Box 141, Monte Carlo. Cable: Votan. Te: 30-67-39 – L.P: Pres: Paul E. Freed Ph.D, Dir. Gen: Ralph Freed D.D, Dir. Radio: B. L. Armstrong, M.A, B.D.
STATIONS: 2×100kW.

kc	m	kc	m	kc	m	kc	m
5960	50.34	7260	41.32	9690	30.96	11730	25.37

FOREIGN SERVICE:
Arabic: Mo–Fri 18.05–18.20 on 9690kc – Armenian: Sun, Sat 18.05–18.20 on 9690kc – Czech: Thurs, Sat 17.00–17.15 on 5960kc – English: D 07.30–08.30(Sun 14.00) on 7260kc – Estonian: Tues, Fri 17.20–17.35 on 7260kc – French: D 11.45–12.15 on 5960kc, 18.45–19.00 on 5960kc – German: Sun 10.35–11.00, D 11.30–11.45, D 16.35–17.00 on 5960kc, D 19.00–19.25 on 5960kc – Greek: Sun 19.30–19.45 on 7260kc – Hebrew: D 17.45–18.00 on 11730kc – Hungarian: Sun, Thurs, Sat 14.45–15.00 on 5960kc – Italian: D 12.20–12.35 on 5960kc – Latvian: Mo, Wed, Thurs 17.20–17.35 on 7260kc – Norwegian: 17.00–17.30 on 9690kc – Persian: Fri 05.30–05.45 on 11730kc – Polish: Mo, Tues, Wed, Fri 17.00–17.15 on 5960kc – Portuguese: D 20.45–21.00 on 7260kc – Rumanian: Sun/Sat 17.20–17.35 on 7260kc – Russian: D 15.25–15.55 on 9690kc – Spanish: D 13.00–13.30 on 7260kc – Ukrainian: D 15.10–15.25 on 9690kc – Yugoslavian: Sun 13.30–13.45, Wed 14.30–14.45 on 7260kc.
ANN: E: "This is Monte Carlo" or "You are listening to Monte Carlo" – "We invite our listeners in the British Isles to stay tuned for the following prgr's of Trans World Radio". F: "Ici Monte Carlo. Trans World Radio vous presente un programme en langue Française". G: "Hier ist Monte Carlo, von Trans World Radio hören Sie ein Programm in deutscher Sprache". – INT-SIG: Musical Box.



V. by QSL-card. Records accepted.
F.PL: Presently two powerful s.w. tr's are under construction on the Island of Bonaire in the Neth. Antilles. One tr. of 260kW will be employed and a m.w. tr. with power 525kW is being installed. This radio st. will transmit daily to a worldwide listening audience on s.w. and to the Western Hemisphere targets on the standard broadcast band on m.w. Seven s.w. coverage antennas are being constructed for the following target areas: I)No.America. II) to So.America, III)Europe. IV) No. Africa. V) C. Am, Caribbean. Expected completion date: m.w: End of 1963, s.w: April 1964.

NORWAY

L.T: GMT+1 h – Pr.L: Norwegian.

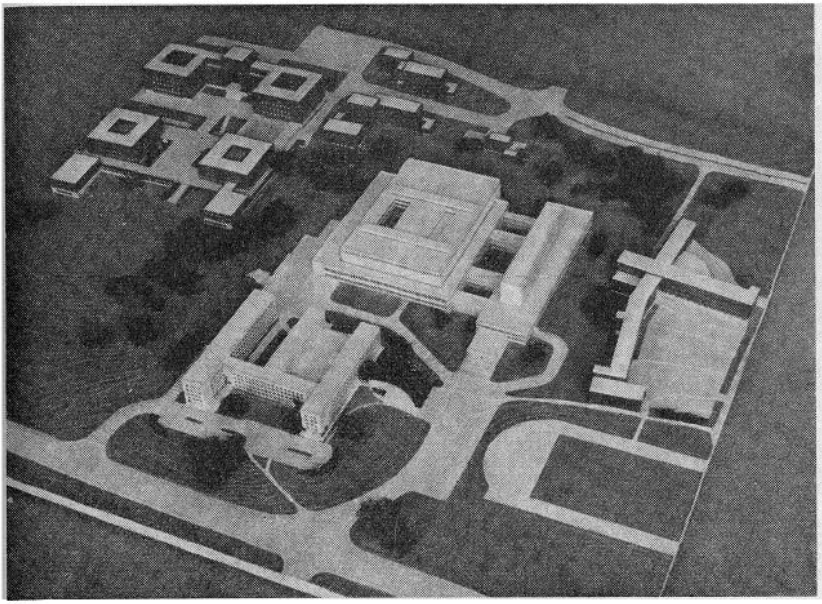
NORSK RIKSKRINGSKASTING (Go.)
A non-comm. enterprise operated by an indep. organization.
FI: By license payments – ADDR: Bj. Björnsons Plass 1, Oslo. Cable: Studio, Oslo. Te: 463820 – L.P: Dir. Gen: Dr. Hans Jacob Ustvedt. Dep. Dir. Tec: E. Julsrud. Dep. Dir. Prgr: L. Rustad. Dep. Dir. Adm: O. Granlund. Chief Secr: B. Kragem. Studio Controller: A. Klæbo. Prgr. Editors: H. Hegtun, Karl C. Lyche, H. Kiran, A. Feldborg. Dir. Music: K. Lange. Dir. Plays: H. Heiberg. Editor "Programbladet": E. Strand. Dir. sw. Prgr: G. Nygaard. Press and Inf. Officer: A. O. Andersen.
Long- and Medium Waves:

	kc	m	kW		kc	m	kW
Tromsö	155	1935	10	Bö i Vesterålen	1115	269	1
Oslo	218	1376	200	Stavanger	1313	228	100
Röros	520	577	0.25	Geilo	1466	205	0.25
Vigra	629	477	100	Kautokeino	1466	205	1
Bodö	674	445	10	Narvik	1466	205	1
Finnmark	710	428	20	Porsgrunn	1466	205	0.25
Bergen I	890	317	20	Sandnessjöen	1466	205	0.25
Kristiansand	890	337	20	Svalbard	1466	205	1
Tröndelag	890	337	20	Brönnöysund	1484	202	0.25
Alta	1115	269	0.25	Glomfjord	1484	202	0.25
Arendal	1115	269	0.25	Karasjok	1484	202	1
Bergen II	1115	269	1	Mosjöen	1484	202	0.25
Lista	1115	269	0.25	Rjukan	1484	202	0.25
Mo i Rana	1115	269	0.04	Fredrikstad	1578	190	10
Namsos	1115	269	1	Nordkapp	1578	190	1.3
Notodden	1115	269	1				
Odda	1115	269	0.25				

FM	Mc	kW		Mc	kW		Mc	kW
Börve	87.6	0.02	Sogndal	91.5	30	Rjukan	95.0	0.05
Hovdefjell	87.8	15	Varanger	91.8	15	Skafså	95.1	0.01
Gulen	88.0	15	Grong	91.9	15	Berlevåg	95.8	0.02
Hemmes	88.5	15	Sunndalsøra	92.0	0.05	Velfjord	95.8	0.3
Oslo	88.65	50	Hadsel	92.4	15	Hattfjelldal	96.0	0.030
Greipstad	88.8	11	Melhus	92.4	60	Stord	96.0	60
Narvik	88.8	15	Tana	92.5	30	Hammerfest	96.6	30
Øre	89.1	15	Førde	92.8	15	Høyanger	96.8	0.01
Vega	89.3	25	Voss	93.3	60	Årdal	97.1	0.01
Nordfjord	89.4	15	Lesja	93.5	4	Hellesylt	97.5	0.008
Odda	90.0	0.01	Bremanger	93.6	15	Fauske	97.6	1.3
Norheims.	90.1	0.04	Gjøra	93.6	0.01	Lyngdal	97.6	12
Steigen	90.3	15	Skien	93.7	0.025	Tron	98.3	30
Sauda	90.9	0.01	Otta	94.0	0.05	Valldal	98.5	0.075
Steinkjer	90.0	12	Bjerkreim	94.2	60	Båtsfjord	98.7	0.02
Kongsberg	91.3	60	Lom	94.9	0.05	Geiranger	99.9	0.008
Stryn	91.4	0.5						

Power Line distribution: Langerak 300kc 0.6kW. Bygland 290kc 0.25kW. Oppdal 290kc 1kW. Röldal 285kc 1kW. Sand 300kc 1kW. Sulitjelma 511kc 0.25kW. Tonstad 300kc 2kW. Åndalsness 300kc 0.25kW. Åröy 300kc 0.6kW. Åseral 300kc 2kW. Tonstad 290kc 2kW.
The Marconi Company Ltd. G. B. delivered: Oslo 2×100kW, 1×2 kW, 1×1¼kW. Stavanger 11×5kW, 5×900W, 1×10W tr's.
AKG, Austria, delivered studio equip. (recorders, microphones).
Sondor, Switzerland, delivered studio equip. (recorders).
Telefunken AG, Germany: studio equip. (recorders).

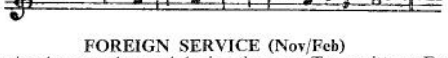
Advertisement



New planned TV-center and readybuilt headquarter sound Radio, Oslo

NORWEGIAN BROADCASTING CORP., OSLO NORWAY

HOME SCE: W: 05.30–09.00, 10.20–13.30, 14.30–22.20. Sun: 06.50–15.00, 15.30–23.00. N: 05.40(W), 07.00(W), 08.00(Sun), 12.00, 15.05, 17.35, 21.10 – **Wrp:** 05.40(W), 07.00(W), 08.00(Sun), 12.00, 17.30, 21.00 – **Folklore Music:** Sun 16.30 – **Rel:** Sun 10.00, Thurs 17.00, W 07.15 – **L.L: German:** Sun 07.00–07.15. **English:** Sun 07.15–07.40.
Bergen I (337m, Voss FM, Odda 205m, Aröy 1000m): Mo–Fri 15.10–15.30: Information.
Bergen II Local: D 16.00–17.30(Sun 17.45) – This prgr. is broadcast by the stations: Brönnöysund, Sandnessjöen, Mosjöen, Mo i Rana, Sulitjelma, Bodö, Narvik, Glomfjord, Tromsö, Alta, Nordkapp, Finnmark.
Samisk from Tromsö, Alta, Nordkapp, Finnmark: Tues 13.10–13.40. Sat 13.30–14.00. **Reg.prgr's** over all tr's W 13.00–13.30.
ANN: "Dette er Norsk Rikskringkasting". **In Samisk:** "Det la Norga Rikaradio, Tromsast. Di gullabetet Samgial programa" – **INT-SIG:**



FOREIGN SERVICE (Nov/Feb)

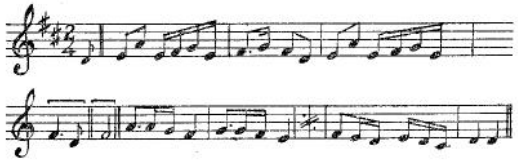
Frequencies that may be used during the year. Transmitters: Fredrikstad 100kW (1), 10kW (2), 5kW (one, 13m only), 2kW (one, 11m only), 0.2kW (1), Tromsö 10kW (1).

Call	kc	m	Call	kc	m	Call	kc	m
LKF	1578	190.1	LLD	9550	31.41	LLM	15175	19.77
LKJ	6130	48.94	LLG	9610	31.22	LKW	17755	16.90
LLI	6185	48.50	LLH	9645	31.10	LLN	17825	16.83
LLS	7210	41.61	LKQ	11735	25.56	LLP	21670	13.85
LLR	7240	41.44	LLK	11850	25.32	LLQ	21730	13.81
			LKV	15170	19.78	LLA	25900	11.58

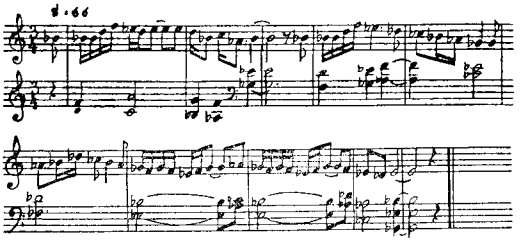
Abbreviations: I=Europe, Africa, Mid- & So.Atlantic; II=Europe, Near East, Ea.Africa, Madagascar; III=Far East, Japan, N. Zealand, Ea.Australia; IV=Europe, India, We.Australia; V=So.America, Mid- & So.Atlantic; VI=No.Atlantic, No.America (East), Caribbean; VII=No.Atlantic, No.America (West), Pacific, Ea.Africa.
a Home Sce. b For Norwegians abroad. c Weather at Sea (in Norwegian only). d Norway this week. A=Nov 63–March 64. B=March–May 64. Freq's in fat types 100kW.

Time	Prgr.	Ar.	Per.	kc
06.00–06.35	a	I	A	11850, 15175, **17825**
07.00–07.20	a		B	6185, 11850, 15175, 17825, 21730
10.25–10.35	c	VI	A	9610, 11850, **15175**, 21730
			B	11850, 15175, 17825, 21730
11.00–12.30	b	III	A	9610, **15175**, 17825, 21730
			B	11850, 15175, 17825, 21730
13.00–14.30	b+d	IV	A	6130, **15175**, 17825, 21730
			B	9610, 15175, 17825, 21730
15.00–16.30	b+d	VI	A	9610, **15175**, 17825
			B	9610, 11850, 15175, 21730
17.00–18.30	b+d	II	A	6130, **9610**, 11850
			B	6185, 15175, 17825, 21730
19.00–20.30	b+d	I	A	6130, **9610**, 11850
			B	6185, 11850, 15175, 21730
23.00–00.30	c+b+d	V	A	6130, **9610**, 11850
			B	6185, 9610, 11850
01.00–02.30	c+b+d	VI	A	**6130**, 9610
			B	6185, 9610
04.00–05.30	c+b+d	VII	A	**6130**, 9610
			B	6185, 9610

N. in Norwegian at the beginning of each tr. N. in English: Sun: 12.00, 14.00, 16.00, 18.00, 20.00, 24.00. Mo: 02.00, 05.00.
Tromsö Short-Wave tr. carries the Norwegian Home Service on 6185kc during A, on 7210 and 11735kc during B.
Prgr. for Norwegians abroad: Sun: Rel. Sce, Sport, L.N. – Mo: Sport N, Parliament N – Tues: Actualities, L.N – Wed: Request Prgr. (music), L.N – Thurs: World N, L.N – Fri: Missionary N, L.N – Sat: Letter Box, L.N.
ANN: "This is Radio Norway with its shortwave service for Norwegians abroad".
INT-SIG: Every s.w. transmission is introduced by the following theme, which originates from an ancient folk tune from Hallingdal.



Five minutes previous to every s.w. tr. the following signal is sent:



Message to our English-speaking audience: In our daily prgr's for Norwegians abroad we will usually have a section of Norwegian music or music presented by Norwegian artists. This musical section, which lasts 15 to 20 minutes, is introduced in **English** as well as in **Norwegian.** On Wed and Sat you can listen to our **"Letter Box Programme"**, in which we play our listener's **request records.** We often receive letters from listeners in Norway with request to play a record with a greeting to one of their relatives abroad, but we regret to be unable to comply with these requests. Every Sunday we have an additional prgr. in English, **"Norway this week"**, in which we try to present Norway in different ways through music and feature prgrs. We are very grateful for comments on our transmission. Reports are answered by QSL-card. Return postage is not necessary. Our postal address is: **RADIO NORWAY,** Oslo, Norway.

PUB: Programbladet (weekly). Prgr.schedule free on request.

TELEVISION

FI: By license payments – **ADDR:** See Sound Broadc – **L.P:** Dir. Gen: Dr. Hans Jacob Ustvedt. Dir. Prgr: O. Nes. Dir. Tec: T. Navelsaker.

STATIONS: ch E. Po. H:

Stations	ch	kW (ERP)		ch	kW (ERP)
Greipstad	2	15	Drammen	9	0.001
Melhus	2	100	Gjøvik	9	0.018
Molde	3	0.5W	Halden	9	0.01
Kongsberg	4	100	Kongsvinger	9	0.004
Nordhue	5	60	Larvik	9	0.002
Lier	5	0.003	Notodden	9	0.01
Haus	6	0.035	Skafså	9	0.01
Oslo	6	100	Sandefjord	10	0.002
Øre	6	60	Furuset	11	0.04
Hovdefjell	7	30	Hamar	11	0.006
Laksevåg	7	0.05	Rjukan	11	0.04
Bokn	8	15	Skien	11	0.01
Porsgrunn	8	0.002	Sunndalsøra	11	0.064
Ålesund	8	0.01	Tønsberg	11	0.0002
Bergen	9	140			

D.PRGR: Testpicture W 09.30–15.00. Prgrs: D 18.30–20.00.

The Marconi Company Ltd, G.B, delivered: Stavanger 2×4kW, 2×1kW, 1×3kW, 1 amplifier 50W – **Brown Boveri,** Switzerland, delivered: Jonsknuten 10/2kW, Vassfjellet 10/2kW, Nordhue 10/2kW, Gamlemsveten 10/2kW, Bremanger 10/2kW – **AKG,** Austria, delivered: studio equip. (recorders, microphones).

NOREA RADIO (Nordic Radio Evangelistic Association)

FI: By gifts from listeners and friends – **ADDR:** Grensen 19, Oslo. **Cable:** Norskluth. **Te:** 417640 – **L.P:** Dir. Adm. & Prgr: M. Leine. Dir. Tec: Å. Nevland – **D. PRGR:** Norwegian 17.00–17.30 on 5960, 7260 or 9630kc 100kW over R. Monte Carlo – **V.** by QSL-card or letter.

POLAND (People's Rep. of)

L.T: GMT+1 h (Summer: GMT+2 h) – **Pr.L:** Polish.

POLSKIE RADIO I TELEWIZJA (Go.)

FI: By license payments – **AD:** 7% of broadc. time. **ADDR:** Komitet do Spraw Radio i Telewizji "Polskie Radio i Telewizja" ul. Noakowskiego 20, Warsaw. **Cable:** "Polskieradio". **Te:** 2106.

L.P: Pres: W. Sokorski. Vice Pres, Home Sce: H. Werner, Vice Pres. Foreign Sce: E. Uzdanski. Vice Pres, Engineering: K. Kozlowski. Dir. Prgr. Home Sce: O. Stampfl. Dir. Prgr. Foreign Sce: H. Meller. Vice Pres. for TV: A. Walatek. Dir. Adm: A. Landau. Secr. Gen: H. Cendrowski. Dir. Music: R. Jasinski. Dir. Tec: B. Klimaszewski. Head Intern. Relations Office: Mme J. Kowalikowa.

HOME SCE:	kc	m	kW		kc	m	kW
Warszawa I	227	1322	500	Gdansk	1304	230	30
Poznan	737	407	300	Szecin	1304	230	80
Warszawa II	818	367	300	Bialystok	1367	219.8	30
Katowice	1079	278	60	Lublin	1367	219.8	30
Krakow	1205	249	60	Lódz	1484	202	8
Rzescow	1205	249	60	Kielce	1484	202.2	1
Lódz II	1367	219.8	50	Olsztyn	1484	202.2	1
Wroclaw	1259	238.5	50	Zakopane	1484	202.2	2
Zielona Gora	1259	238.5	20	Szczecinek	1484	202.2	2
Slupsk	1484	202.2	2	Opole	1594	188.2	1
Jelenia Góra	1484	202.2	1	Koszalin	1594	188.2	1

FM: Warszawa III 97.6Mc 10kW 69.2Mc 2kW – Katowice 89.8Mc 3kW 65.9Mc 2kW 68.3Mc 2kW – Opole 95.0Mc 3kW – Gdánsk 70.3Mc 5kW – Bydgoszcz 71Mc 5kW, 68.9Mc 5kW – Zgorzelec 68.2 Mc 0.3kW.

AKG Austria: studio equip. (recorders, microphones).

The Marconi Company Ltd, GB: One 10kW tr – **Telefunken AG, Germany:** Warszawa 0.3kW FM-tr. studio-equip. (recorders).

Prgr. I 227kc: W 03.57–22.10(Sat 22.40). Sun 04.30–23.40.

N: 04.00(W), 05.00, 06.00, 07.00, 08.00(Sun), 11.04, 14.00, 16.00, 19.00, 22.00 – **Folk Music:** W 11.45–12.00 – **Chopin Concert:** Wed 20.00–20.30 – **The Polish Radio Symphony Orchestra (WOSPR) Concert:** Mo 20.00–22.00 – **L.L: English:** Mo, Thurs 17.30–17.45. **French:** Wed, Sat 17.30–17.45. **Russian:** Tues, Fri 17.30–17.45.

Prgr. II 818kc: W 04.25–23.00(Sat 01.00). Sun 05.00–23.00.

N: 04.30(W), 05.30, 06.30, 07.30, 11.04, 15.00(W), 16.00(Sun), 20.00, 22.50 – **Chopin Concert:** Sun 15.30–16.00 – **National Philharmonic Concerts:** Fri 18.30 – **Symphonic Concert:** Sun 11.10 – **L.L: English:** Tues, Fri 08.45–09.00. **French:** Thurs, Sun 08.45–09.00. **Russian:** Wed, Sat 08.45–09.00.

Prgr. III 97.6Mc: D 18.30–22.00.

FOREIGN SERVICE; 5/100kW, l.w. 500kW:

kc	m	kc	m	kc	m	kc	m
227	1322	5950	50.42	7145	41.99	9675	31.01
1079	278.0	6005	49.96	7285	41.18	11800	25.42
1304	230.0	6135	48.90	9525	31.50	11840	25.34
1502	199.7	7125	42.11	9540	31.45	11955	25.09
						15275	19.64

Oct. 63–April 64

TO EUROPE

Danish:	kc
16.30–17.00	6135, 7125
20.30–21.00	6135, 7125, 9540, 1502
English:	
18.30–19.00	6135, 7125
19.30–20.00	6135, 7125
20.30–21.00	5950, 7285
21.30–22.00	6135, 7125
22.30–23.00	5950, 9540, 1502
Finnish:	
16.00–16.30	6135, 7125
19.00–19.30	6135, 7125
French:	
11.00–11.15	9525, 9540, 11800 11955
16.30–17.00	7145, 9675
17.30–18.00	7145, 9675, 9540, 1502
20.00–20.30	5950, 7285
21.30–22.00	5950, 7285
22.00–22.30	5950, 9540, 1502
German:	
11.30–12.00	7125, 7285, 11840, 1502
17.00–17.30	5950, 7285, 9540, 1502
18.30–19.00	5950, 7285, 9540, 1502
19.30–20.00	5950, 7285
21.00–21.30	5950, 7285
Italian:	
11.15–11.45	9525, 9540, 11800, 11955
17.00–17.30	6135, 7125
18.00–18.30	7145, 9675, 9540, 1502
20.00–20.30	7145, 9675
21.00–21.30	6135, 6005, 7125, 7145, 9540, 1502
Polish:	
05.00–06.30	6005, 6135, 7125, 7285, 9525, 1502
06.30–07.00	6005, 6135, 7285, 9525
12.30–13.30	9525, 9540, 11800, 11955
15.00–15.30	5950, 6135, 7125, 7285, 7145, 9540, 9675, 1502
16.00–16.30	5950, 7285
16.30–17.00	5950, 7285, 9540, 1502
17.30–18.00	5950, 7285
18.00–18.30	5950, 7285, 6135, 7125
19.00–19.30	5950, 7285
22.45–23.15	227
23.15–23.45	1304, 1079
Spanish:	
17.00–17.30	7145, 9675
20.30–20.57	7145, 9675
23.00–23.30	7125, 5950, 1502
Swedish:	
17.30–18.00	6135, 7125
20.00–20.30	6135, 7125
21.30–22.00	9540, 1502
22.15–22.45	227 (Mo–Fri)
22.45–23.15	227 (Sat/Sun)
Esperanto:	
15.30–16.00	5950, 6135, 7125, 7145, 7285, 9540, 9675, 1502
Concerts	
06.30–07.00	7125, 1502
16.00–16.30	9540, 1502
19.00–20.30	9540, 1502
23.30–01.00	5950, 7125, 1502

OVERSEAS SCE.

TO AUSTRALIA/ NEW ZEALAND

English:	kc
07.30–08.00	9675, 11840, 15275
08.30–09.00	9675, 11840, 15275
Polish:	
07.00–07.30	9675, 11840, 15275
08.00–08.30	9675, 11840, 15275

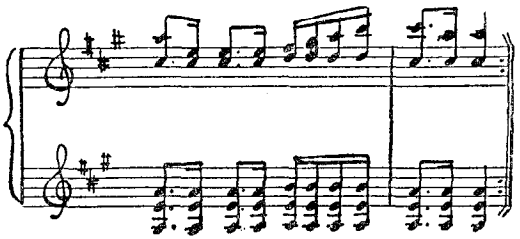
TO AFRICA

English:	kc
12.00–12.30	7125, 11840, 15275
13.00–13.30	7125, 11840, 15275
19.00–19.30	7145, 9675
22.00–22.30	7145, 6005, 7285, 7125, 11840
French:	
12.30–13.00	7125, 11840, 15275
13.30–14.00	7125, 11840, 15275
18.30–19.00	7145, 9675
22.30–23.00	7145, 6005, 7285 7125, 11840

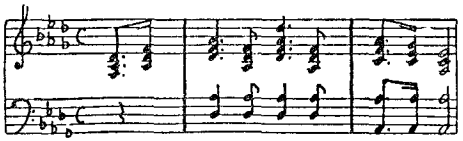
TO SOUTH AMERICA

Polish:	kc
23.00–23.30	9675, 11840, 15275
23.30–24.00	9675, 11840, 15275
00.30–01.00	9675, 11840, 15275
01.00–01.30	9675, 11840, 15275
Spanish:	
00.00–00.30	9675, 11840, 15275
01.30–02.00	9675, 11840, 15275

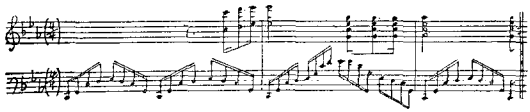
DX-PRGR: English: 2nd Fri of the month 18.30 and following Mo 21.30. **Swedish:** Thurs 17.30. **Danish:** Wed 16.30 (fortnightly).
ANN: Home Sce: "This is Polskie Radio Warsaw" (or another station when local programme) – "Tu Polskie Radio Warszawa". – **Foreign Sce: E:** "This is Warsaw calling" – **Polish:** "Mówi Warszawa" – **F:** "Ici Varsovie etc" – **G:** "Hier spricht Warszawa" – **Sp:** "Habla Radio Varsovia" – **I:** "Qui Radio Varsavia" – **Danish:** "Her er Warszawa" – **Swedish:** "Här är Polens Radio Warszawa".
INT-SIG: Home Sce: Warsaw National, Warsaw I:



Warsaw II: First movement of Polonaise in A flat major by Chopin



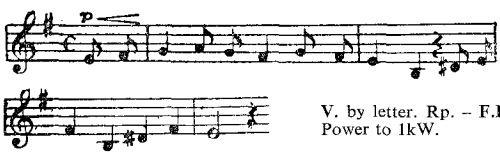
Foreign Sce: Revolutionary Etude by Chopin. – **V.** by QSL-card.



V. by QSL-card and letter. Re. to Polskie Radio. Al Niepodleglosci 77/85, Warsaw – **PUB:** "Radio i Telewizja" (weekly).

POLISH PATHFINDERS STATION

(Operated by the Polish Pathfinders Union) – **ADDR:** *Konopnickiej 6,* Warszawa – **L.P:** Dir. Gen: K. Soczek. Dir. Tec: J. Sieluzycki. **STATIONS:** 6850kc 43.80m 0.35kW – 7306kc 41.06m 0.35kW. **HOME SCE. in Polish:** 10.00–17.00 (During summer vacation no broadcasts) – **ANN:** "Tu Rozglosnia Harcerska" ("Here is a Polish Pathfinders Union Radiostation") – **INT-SIG:**



V. by letter. Rp. – **F.PL:** Power to 1kW.

PORTUGAL

L.T: GMT (GMT+1 h from 1st Sun in April to 1st Sun in October) – **Pr.L:** Portuguese.

EMISSORA NACIONAL DE RADIODIFUSAO (Go.)

ADDR: Rua do Quelhas 2, Lisboa – Cable: "Emissora-Lisboa". Te: 660181 PBX – Emissor Regional do Norte: Rua Candido dos Reis, Porto – Emissor Regional de Coimbra, Faro, Guarda – Emissor Regional dos Açores: Ponta Delgada, Açores – **L.P:** Dir. Gen: Dr. J. M. Ferreira. Dir. Tec: Eng. M. Bivar. Dir. Adm: Dr. C. Rogeiro. Dir. Prgr: Eng. J. da Silva Dias, Foreign Sce: Dr. V. de Carvalho.

HOME SERVICE

Stations: M.W.	*kc*	*m*	*kW*	*h of tr.*
Lisboa I	665	451.1	135	07.00–24.00(Sat 01.00)
Lisboa II	755	397.3	135	12.00–15.00, 19.00–01.00(a)
Norte I	719	417	25	as Lisboa I
Norte II	1061	283	25	as Lisboa II

For the following stations are h of tr. as for Lisboa I.

	kc	m	kW		kc	m	kW
Porto	*1367*	*219*	*10*	*Covilha*	*1562*	*192.1*	*1*
Coimbra	1448	207	1	Viseu	1358	220.9	1
Faro	557	539	1	Portalegre	1484	202.2	0.1
Guarda	557	539	1	Elvas	1358	220.9	0.1

Brown Boveri, Switzerland: 2×25kW and 2×135kW mw-tr's (S. Salvador & Castanheira).

Short Waves:	kc	m	kW	h of tr.
Atlantico (Lisboa)	11875	25.26	10	09.00–18.00
	6025	49.79	10	20.00–24.00(Sat 01.00)
Açores Regional (Ponta Delgada)	4865	61.66	1	14.00–15.00, 20.00–24.00

FM:
Lisboa I 95.7Mc 12kW – Lisboa II 94.3Mc 12kW – Porto I 96.7Mc 22kW – Porto II 92.5Mc 22kW – Lousa I 87.9Mc 40kW – Lousa II 89.3Mc 22kW – Monchique I 88.9Mc 2.5kW – Monchique II 91.5Mc 2.5kW – Guarda 94.7Mc 1kW.
(a) Sun 13.00–01.00.
N: Lisboa I: 07.15, 08.15, 13.00, 18.00, 21.00, 23.45. Lisboa II: 19.50. Porto II, Coimbra, Guarda: 20.30.
Special Broadcasts: "The Voice of the Occident": 22.00–24.00 on 755kc 135kW and 1061kc 50kW: **French:** 22.00–22.45 (N. 22.00) – **English:** 22.45–23.30 – **Spanish:** 23.30–24.00.
ANN: "Emissora Nacional a transmitir com... (regional tr.)". **E:** "The Voice of the West". **F:** "La Voix de l'Occident". **Sp:** "La Voz de Occidente" – **V.** by QSL-card.

OVERSEAS SERVICE

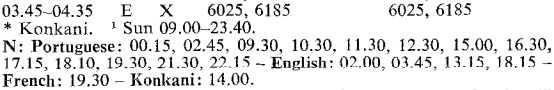
Short Waves: All Lisboa st's exc. those marked with * (Ponta Delgada). All stations directional exc. 123, 75 and 61 m.b. All st's 100kW exc. 2422kc (1), 75 m.b. (10), 61 m.b. (1). Call: CSA––.

Call	kc	m	Call	kc	m	Call	kc	m
97	4865*	61.66	58	11875	25.26	64	15125	19.83
52	6025	49.79	30	11915	25.18	42	15380	19.50
29	6185	48.50	71	11925	25.16	209	17835	16.82
55	7130	42.07	72	11935	25.14	45	17880	16.78
24	9670	31.02	32	11995	25.01	66	17895	16.76
25	9680	30.99	–	12080	24.82	67	21495	13.96
27	9740	30.80	75	15050	19.93	49	21700	13.83
31	11840	25.34	39	15100	19.87			

Brown Boveri, Switzerland: 100kW sw-tr. (São Gabriel).
Remark: Powers indicated are the powers at carrier level.
I=Timor, II=Macau, III=India/Pakistan/Persian Gulf, IV=Goa (Portuguese India), V=So. & So. East Africa, We. Africa, Europe, VI=S. Tomé/Angola/Mozambique, VII=Guinea/Cape Verde/Brazil, VIII=No. Atlantic/Portuguese Fishing Fleet, IX=Açores, Madeira, X=No. America.

H of tr.	L.	Area	Nov/Feb.	March/Apr.
09.00–13.00	P	I	21495, 15380	21495, 15380
09.00–13.15	P	II	17895, 15125	17880, 15125
13.15–14.00	E	III	21495, 17895, 15125	17895, 15380
14.00–14.45	*	VI	21495, 17895, 15125	17895, 15380
14.45–17.15	P	IV	21495, 17895, 15125	17895, 15380
18.15–19.30	E	V	15125, 11935, 9680, 6025	17880, 15125, 11935, 6025
19.30–20.00	F	V	15125, 11935, 9680	17880, 15125, 11935
09.00–13.15[1]	P	VI	21700, 17880, 15125	21700, 17880, 15125
17.15–23.40[1]	P	VI	17880, 15125, 11925, 9680	17880, 15125, 11935
14.00–17.00	P	VII	21700, 17880, 15380	21495, 15380, 11840, 9740
17.15–02.00	P	VII	15380, 11840, 9740	11840, 9740
22.45–24.00	P	VIII	9675, 6185	11875, 9635
09.00–18.00	P	IX	11925	11925
20.00–24.00	P	IX	6025	6025
00.00–02.00	P	X	6025, 6185	6025, 6185
02.00–02.45	E	X	6025, 6185	6025, 6185
02.45–03.45	P	X	6025, 6185	6025, 6185
03.45–04.35	E	X	6025, 6185	6025, 6185

* Konkani. [1] Sun 09.00–23.40.
N: Portuguese: 00.15, 02.45, 09.30, 10.30, 11.30, 12.30, 15.00, 16.30, 17.15, 18.10, 19.30, 21.30, 22.15 – **English:** 02.00, 03.45, 13.15, 18.15 – **French:** 19.30 – **Konkani:** 14.00.
ANN: P: "Aqui Lisboa, Serviço Ultramarino da Emissora Nacional" or "Lisboa, estudios da Emissora Nacional". **E:** "This is Lisboa Calling" – **INT-SIG:** T.-S. and National Anthem – **V.** by QSL-card.



PUB: "Aqui Lisboa" (quarterly), "Radio e Televisao" (weekly), English Prgr.sched. (monthly).

R. UNIVERSIDADE (Go. – Ministry of Nat. Education)

ADDR: R. D. Estefania 14, Lisboa 1. **Te:** 41884 – **L.P:** Dir: Dr. A. R. Gonçalves Pereira. Tec. Asst: V. Felix.
HOME SCE: Cultural and informative prgrs. mainly: W 17.00–17.55. Sun 10.00–12.55 on 755kc (Lisboa II).
ANN: "R. Universidade, estudios do Centro Universitario de Lisboa da Mocidade Portuguesa, a transmitir por intermedio da Estaçao

Lisboa 2 da Emissora Nacional" – **INT-SIG:** Opens with "Gaudeamus Igitur" and closes with the "Marcha da Mocidade Portuguesa" – **V** by QSL-card. Records accepted – **F.PL:** FM tr's in Lisboa, Coimbra, Porto – **PUB:** monthly bulletin free.

RADIO RENASCENCA (Rlg. Catholic)

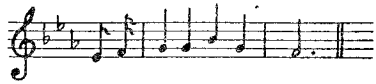
ADDR: Emissora Catolica Portuguesa, Rua Capelo 5, 2°, Lisboa. **STATIONS:** Lisboa CSB3 1286kc 233m 2kW – CSB2 6155kc 48.74m 3kW – Porto CSB30 1169kc 256m 10kW.
HOME SCE: 07.00–02.00 – **N:** 08.25, 12.45, 20.30.
ANN: "R. Renascenca-Emissora Catolica Portuguesa" – **INT-SIG:** Gong. Prgr's open with a religious choir – **V.** by QSL-card.

R. CLUBE PORTUGUES (Comm. Sociedade Anónima Cooperativa de Responsabilidade Lda.)

AD: 15% of broadc. time – **ADDR:** Central Office: Rua Sampaio e Pina 26, Lisboa 1. **Cable:** Radioclube. **Te:** 682071. **Telex:** 596 **No. Branch:** Delegaçao do Norte, Rua de Ceuta 53, Porto. **Te:** 23863. **Telex:** 0742 – **L.P:** Gen. Mgr: A. Lima Basto. Tec. Dir: M. Menezes. Dir. Prgr: A. Jorge. Comm. Dir: J. B. Moniz. **No. Branch:** H. Schreck.

STATIONS		kc	m	kW	h of tr.
Miramar	CSB9	782	383.6	100	07.00–01.30
Parede	CSB2	1034	290.1	25	00.00–24.00
Parede	CSB51	6080	49.34	10	00.00–24.00

FM: Lisboa CSB55 97.4Mc 3kW: 08.00–01.00 – Porto CSB29 97.7Mc 1kW: as CSB9.
N: 00.45, 01.45, 02.55, 04.45, 06.45, 08.45, 10.45*, 12.45, 16.30*, 17.45, 19.45, 20.00 (782kc+97.7Mc), 21.00, 23.45. * 782kc+FM only.
ANN: Parede: "R. Clube Português transmitting with its st's of medium and short wave from Parede" – Miramar: "R. Clube Portugues transmitting with its st. of medium wave from Miramar" – **INT-SIG:** Gong – **V.** by QSL-card. Records accepted.



EMISSORES ASSOCIADOS DE LISBOA (Comm.)

FI: Priv. (4 partners) – **AD:** 15× of broadc. time – **ADDR:** Rua de Campolide 19, 6°D°, Lisboa 1. **Te:** 683450. **Studios:** R. Voz de Lisboa: Av. Infante Santo 53, Lisboa 3. Clube Radiofónico de Portugal: R. Carlos Mardel 5, Lisboa 1. R. Craça: R. Verónica 126, Lisboa 2. R. Peninsular; R. Fialho Almeida 3, Lisboa 1 – **L.P:** St. Dir: Dr. A. Larangeira. Dir. Tec: C. Barradas da Silva.
STATIONS: 1594kc 188m 10kW – FM: 99.4Mc 1kW.
HOME SCE: W 07.00–02.00, Sun 00.00–24.00. **N:** 13.00, 21.00. **Wrp:** 13.15, 21.15 – **ANN:** "CSB 4, Estacao de Emissores Associados de Lisboa" – **INT-SIG:** String chords (guitar) – **V.** by QSL-card.

EMISSORES DO NORTE REUNIDOS (Comm.)

ADDR: R. D. Joao IV, Porto. **Te:** 30781 – **L.P:** Dir: A. Rodrigues. Dir. Tec: F. Grilo – **STATION:** CSB5 1578kc 190.7m 10kW – **HOME SCE:** 07.00–02.00. **N:** 23.50.

RADIO RIBATEJO (Comm.)

FI: By adv – **ADDR:** Av. D. Rodrigo da Cunha, 9, Lisboa. **Te:** 720070. **L.P:** Dir. Gen: J. Varela Santos. Dir. Tec: A. V. Santos.
STATION: Santarem 1322kc 226.9m 0.4kW – **HOME SCE:** 10.00–14.00, 18.00–20.00. **N:** 13.45 – **INT-SIG:** Gong – **V.** by QSL-card. Re. P., Sp., F., E. Records accepted.

RUMANIA (Peoples Rep.)

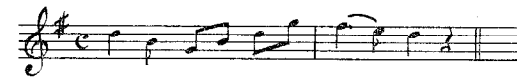
L.T: GMT+2 h – **Pr.L:** Rumanian.

RADIODIFUZIUNEA TELEVIZIUNEA ROMINA (Go.)

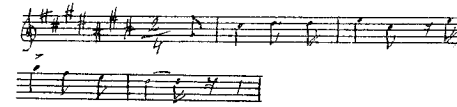
AD: Allowed in special cases. 35 mins per day – **ADDR:** P.O.B. 111, Bucuresti. **Cable:** Radiotelevizïunea. **Te:** 13.46.10. **Telex:** 251 – **L.P:** Pres: Ion Pas. Vice Pres: S. Brucan, C. Prisnea, G. Ionescu, I. Topor. Head For. Rel: D. Natu.
STATIONS:

Name	kc	m	kW	Name	kc	m	kW
Brasov	155	1935	150	Iasi	1052	285.3	50
Bucuresti	557	538.6	4	Cluij	1151	260.9	50
Timisoara II	628	477	30	Constanza	1315	228.0	2
Timisoara I	755	397.3	130	Baia Mare	1428	210.5	2
Bucuresti I	854	351.3	150	Craiova	1457	205.9	20
Miercurea	908	330.0	7	Brasov	1484	202.2	2

FM: 70.4Mc, 72.08Mc, 4kW.
AKG, Austria: delivered studio equip. (recorders, microphones).
Telefunken AG, Germany: studio equip. (recorders).
HOME SERVICES
1st Prgr: W: 03.00–22.00 on 155/1315/1428kc, FM 70.4Mc; 03.00–06.30 on 1052/1457kc; 03.00–08.00 on 854kc; 03.00–04.00, 04.30–05.30, 05.35–13.00 on 755kc; 05.00–05.30, 05.45–06.30 on 908/1151/1484kc; 08.00–22.00 on 557kc. Sun: 04.00–22.00 on 155/557/1315/1428kc, FM 70.4Mc; 04.00–17.30 on 628kc.
N: W: 03.00, 04.00, 05.00, 09.00, 11.00, 15.00, 18.00, 20.00, 21.50. Sun: 05.00, 11.00, 17.30, 20.00, 21.50 – **Wrp:** 03.00(W), 15.00(W), 20.00.
2nd Prgr: W: 08.00–23.00 on 628/854kc; 14.00–14.30 on 755kc (Mo 15.00–15.30); 08.00–12.30, 17.30 23.00 on 908/1151/1484kc; 08 00–15.30, 17.30–23.00 on 1052/1457kc; 08.00–19.25, 21.00–23.00 on FM 72.08Mc (exc. Thurs, Fri 17.30–19.00). Close down on Sat is at 24.00. Sun: 05.00–23.00 on 854kc; 17.30–23.00 on 628kc; 06.00–06.30, 07.30–14.30, 15.15–17.00 on 755kc; 08.30–14.30, 15.15–23.00 on 908/1151/1484kc; 05.00–08.00, 08.30–23.00 on 1052/1457kc; 05.00–17.00, 21.00–23.00 on FM 72.08Mc.
N: W: 08.00, 10.00, 12.00, 14.00, 16.00, 19.00, 21.00, 22.50. Sun: 05.50, 12.00, 18.00, 21.00 – **Wrp:** 12.00(Sun), 14.00(W).
3rd Prgr: W: 19.25(Thurs, Fri 19.00)–21.00. Sun 17.00–21.00 on 72.08Mc – **N:** 19.00(W), 20.00(Sun).
ANN: Home Sce: 1st Prgr: Opening: "Aici Bucuresti, dragi ascultatori, buna dimineata. Transmitem Programul nostru pe statiile de radio cu lungimile de unda de...". 2nd Prgr: "Aici Bucuresti transmitem Programul II pe statiile de radio cu lungimile de unda de...". Close down: 1st, 2nd Prgr: "Aici Bucuresti, dam ora exacta. Emisiunea noastra s-a terminat. Ascultati-ne din nou miine dimineata la orele... pe lungimile de unda de... Dragi ascultatori, noape buna".
INT-SIG: Home Sce. 1st Prgr:



Home Sce. 2nd Prgr:



FOREIGN SERVICE
Stations: 100/130/150kW.

kc	m	kc	m	kc	m	kc	m
155	19.35	6190	48.47	9570	31.35	15250	19.67
755	397.3	7195	41.70	9590	31.28	15380	19.51
5990	50.08	7225	41.52	11810	25.40		
6150	48.78	9510	31.55	11900	25.21		

FOR EUROPE

English:	kc
19.30–20.00	6190/7225/9510
21.00–21.30	5990/6190/7195
22.30–23.00	5960/6190/7195/155
French:	
11.30–12.00	15250
18.30–19.00	7195/7225/9510
20.30–21.00	5990/6190/7195
22.00–22.30	7225/9510
German:	
19.00–19.30	5990/7195
21.00–22.00	755
22.00–22.30	5990/6190/7195/155
Italian:	
17.30–18.00	6190/7225
18.30–19.00	5990/6190
19.30–20.30	755
22.00–22.30	755
Spanish:	
20.30–21.00	7225/9510
21.30–22.00	5990/6190/7195
Portuguese:	
20.00–20.30	5990/6190/7195/7225/9510
Serbian:	
17.00–17.30	755
19.00–19.30	755
Greek:	
17.00–17.30	5990/6190/7195/7225
18.00–18.30	7225/9510/755
20.30–21.00	755
21.00–21.30	7225/9510
Rumanian:	
21.30–22.00	7225/9510
22.30–23.00	7225/9510/755

FOR EAST

English:	kc
15.00–15.30	11810
16.00–16.30	7225/7195/9510/9570/11810
Persian:	
15.30–16.00	7195/7225/9510/11810
18.00–18.30	5990/6190/7195
Turkish:	
16.30–17.00	5990/6190/7195/7225/9510
17.30–18.00	755
Arabic:	
17.30–18.00	6190/7195
19.00–19.30	6190/7225/9510

FOR AFRICA

English:	kc
15.00–15.30	11900/15380
French:	
11.30–12.00	11900/15380
19.30–20.00	7195/11810

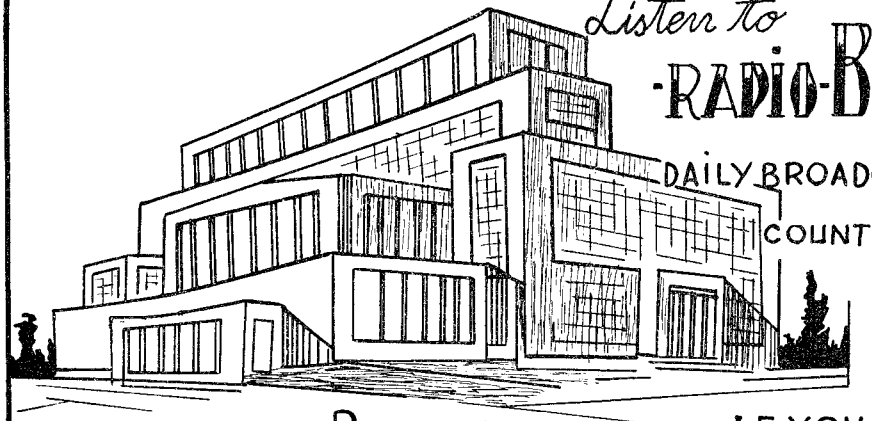
FOR USA

English:	kc
01.30–02.30	6150/6190/7195/7225/9510/9590
03.00–03.30 / 04.30–05.00	6150/6190/7195/7225/9510/9570/9590
Jewish:	
02.30–03.00	6150/6190/7195/7225/9510/9590
Rumanian:	
23.15–24.00	7195/7225/9510
03.30–04.00	6150/6190/7195/7225/9510/9570/9590

FOR SO. AMERICA

Portuguese:	kc
00.00–00.30	6150/6190/7195/7225/9510/9590
Spanish:	
00.30–01.30 / 04.00–04.30	6150/6190/7195/7225/9510/9570/9590

ANN: E: For No. Am: "This is Bucarest calling North America in the... meter bands, that is... kc, with today's first (second third), broadcast in English". For Eu: "This is Bucarest calling, in the...meter bands, that is...kc, with today's first (second, third) broadcast in



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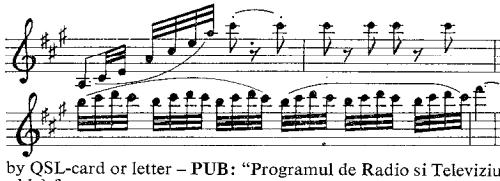
·RUMANIAN·RADIO·AND·TV·
P.O. BOX 111.

English". For N. East: "This is Bucarest calling the Near and Middle East in...meter bands, that is...kc". For Asia: "This is Bucarest calling Asia in the...meter bands, that is...kc". For Af: "This is Bucarest calling Africa in the...meter bands, that is...kc" – F: "Ici Bucarest. C'est Bucarest qui vous parle sur... Bonjour cheres auditrices, bonjour chers auditeurs! Veuillez écouter notre première émission en langue française de la journée (I-ère emission)". "Ici Bucarest. C'est Bucarest qui vous parle sur... Veuillez écouter cette émission en langue française, au cours de laquelle nous diffuserons...". "En espérant que cette émission vous est bien parvenue, nous vous disons: Au revoir chères auditrices, au revoir chers auditeurs. – I: "Parla Bucarest. E' Bucarest che vi parla nella sua prima (seconda, terza, quarta) trasmissione della giornata, su onde corte (medie) di metri... Amci ascoltatori, buona sera". "Qui è radio Bucarest. La nostra prima (seconda, terza, quarta) trasmissione è terminata. A risentirci! Gentili signore e signori, buona notte" – Sp: "Habla Bucarest. Muy buenas noches, estimados oyentes. Comienza nuestra primera (tercera) emision en langua española por campos de onda de...metros" – G: "Hier ist der Rumänische Rund- und Fernsehfunk mit der Sendung in deutscher Sprache. Sie hören uns auf Kurzwelle...gleich...kHz... und auf Mittelwelle...". "Liebe Hörerinnen und Hörer, Radio Bucarest wünscht Ihnen Gute Nacht".

INT-SIG: Foreign Service:



V. by QSL-card or letter – **PUB**: "Programul de Radio si Televiziune" (weekly) free upon request.

SPAIN

L.T: GMT+1 h – Pr.L: Spanish.

RADIO NACIONAL DE ESPAÑA (Go.)

ADDR: General Yague 1, Madrid. **Te**: 254700.

L.P: Dir. Gen. Broadc. TV: D. Roque Pro Alonso. Vice Dir. Broadc: D. M. Garcia Duran. Secr. Gen. Broadc. TV: D. L. Cereceda Delgado. Dir. Tec: Broadc. TV: D. J. Sanchez Cordobes. Chief Economic Adm. Broadc. TV: D. A. Utrilla Sesmero. Chief of Constructions, Installations (Broadc.): D. E. Fernandez Marrero. Dir. Tec. Intern. Org. (Broadc.): D. J. M. Aarto Madrazo. Dir. R. Nacional: D. M. Aznar Gomez-Acedo. Chief low freq's: D. F. Mestre Carrero. Chief short-wave-tr's: D. C. Gonzales Madrono. Chief mw-tr's: D. A. Prieto Arozamena. Chief Adm. D. M. Martinez Pubul. Coordination: D. M. Estevez Alvarez. Transmissions: D. M. Pratz Cañete: Prgr's: D. R. Ramos Losada, Music: D. E. Franco Manera. Chief Foreign Sce: D. L. de Andres Frutos. Chief Editor, N: D. F. Ruiz de Elvira. Chief of Public Rel: D. C. Suevos Fernandez.

HOME SERVICE

STATIONS	kc	m	kW	H of tr.
Madrid	584	513.7	200	08.00–24.00
Madrid (Arganda)	684	438.5	100	18.00–24.00
Madrid (Majadahonda)	989	303	50	07.00–24.00
Sevilla	647	463.6	5	07.00–24.00
La Coruña	712	428	100	07.00–24.00
Barcelona	737	407.1	20	08.00–24.00
Valencia	773	388.1	20	07.00–24.00
San Sebastián	638	470	25	06.00–24.00
Huelva	836	359.0	2	12.00–15.00, 17.00–23.00
Oviedo	962	312	5	10.15–23.00
Málaga	1007	299.0	6	12.00–24.00
Cuenca	1178	245.7	2	11.00–24.00
Málaga	6175	48.58	2	12.00–24.00

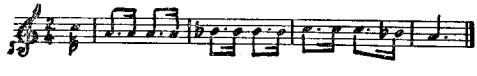
FM: 93Mc 12kW (Madrid) – 98Mc 1kW (Barcelona) – 92.7Mc 12kW (Bilbao).

Madrid: Morning prgr: 04.00–07.00 on 584kc – **Nat. Prgr**: 07.00–24.00 on 584kc – **Third prgr**: 18.00–24.00 on 684kc – N (rel. by all st's): 13.30, 18.30, 21.00, 23.00.

ANN: "Transmite R. Nacional de España desde sus estudios en Madrid".

INT-SIG: Sintonia para Servicio:

Señal de pausa (trumpets):



Madrid-Arganda:

kc	m	kW
5995	50.04	40
6130	48.94	100
7105	42.22	100

FOREIGN SERVICE

kc	m	kW
9360	32.05	50/100
9370	32.01	100
9615	31.20	100

kc	m	kW
9695	30.94	40
11815	25.39	100
15420	19.45	100

Nippon Electric Co. Japan, delivered to Ministerio de Informacion y Turismo 200kW mw-tr. (parallel operation with two 100kW tr's).

Brown Boveri, Switzerland: Mw-tr's: Sevilla 2×125kW, Barcelona 2×125kW, Madrid 1×20kW.

TelefunkenAG, Germany: 100kW, sw-tr. (Barcelona) – 3×0.3kWFM-tr's.

EUROPEAN AND OVERSEAS SERVICE

For details: See advertisement Page 115.

ANN: E: "This is the voice of Spain Broadc. from the Spanish National Radio in Madrid" – **INT-SIG**: Gong and the following tune:

V. by QSL-card or letter – **PUB**: Teleradio (weekly).

RED DE EMISORAS DEL MOVIMIENTO (R.E.M.)

(Broadcasting System of the Phalanx)

The Red de Emisoras del Movimiento belong to the National Delegation of Press, Propaganda and Radio.

FI: by own resources – **AD**: 10 min. per h – **ADDR**: Ayala 15, Madrid 1. **Te**: 236.72.05 – **L.P**: Dir: A. Arias. Adm: M. Sagrera. Dir. Tec: M. Vázquez. Coordination: J. Jiménez. Prgr: J. León.

STATIONS Call EFE:	kc	m	kW	H of tr.
1. La Voz de Valladolid	1385	217	1	10.00–23.30
2. Radio Teruel	1480	203	2	10.00–13.30, 18.00–22.00
4. La Voz de Palencia	1358	220.9	0.8	09.30–23.00
5. La Voz de León	1250	240	0.8	09.00–23.00
6. La Voz de Extremadura	1079	278.3	1	12.00–15.30, 19.00–23.00
7. Radio Denia	1403	213	0.7	11.30–15.00, 18.00–22.00
8. La Voz de Alicante	1358	220.9	1.5	08.30–23.30
9. La Voz del Panadés	1079	278	0.2	12.00–14.00, 19.00–22.00
10. La Voz de Alava	1385	216.6	0.3	09.00–15.30, 17.00–23.00
11. Radio Utiel	1358	220.9	0.09	11.30–15.00, 19.30–23.00
12. Radio Monóvar	1385	216.6	0.2	10.00–16.00, 18.00–23.00
13. La Voz de Sagunto	1385	216.6	0.8	10.00–15.00, 18.00–23.00
14. La Voz de Madrid	1223	245.3	20	07.00–24.00
15. La Voz del Ferrol	1358	220.9	0.7	11.00–23.00
17. La Voz de Levante	1079	278	5	07.00–24.00
18. La Voz de la Ribera Valenciana	1358	220.9	0.5	08.00–15.30, 18.00–23.00
19. La Voz de Castellón	1358	220.9	0.8	10.00–23.00
20. Radio Ripoll	1480	202.7	0.07	12.00–14.00, 20.00–22.00
21. Radio Cazorla	1120	267	0.3	10.00–21.30
22. La Voz del Principado de – Asturias	1079	278	5	08.00–23.00
23. La Voz de Guipúzcoa	1385	216.6	5	08.00–23.30
24. La Voz de Orihuela	1079	278	0.3	10.00–15.00, 18.00–23.00
25. La Voz de Cantabria	1358	220.9	0.8	07.00–24.00
26. Radio Luarca	1358	220.9	0.4	10.30–15.30, 18.30–21.15
27. Radio Maresma	1480	203	0.3	11.00–16.00, 18.00–22.30
28. Radio Tortosa	1607	187	0.9	08.30–22.30
29. Radio Tudela	1480	202.7	2	10.00–14.00, 18.00–23.00
31. La Voz de Vigo	1079	278	5	07.00–24.00
32. Radio Gredos	1480	202.7	20	07.00–24.00
33. La Voz del Mediterráneo	1570	191.1	5	09.00–23.30
34. Radio Atlántico	1480	203.4	2	07.00–23.00
35. La Voz de Urgel y Segarra	1480	203.4	0.37	10.00–22.30
38. Radio Badajoz	1390	215.8	5	07.00–10.30, 12.00–16.00 18.00–23.30
39. Radio Berga	1385	216.6	0.45	11.00–15.00, 18.00–22.00
40. La Voz de la Costa Brava	1250	240	0.25	10.00–16.00, 19.00 23.00
41. Radio Olot	1250	240	0.63	11.00–15.00, 18.00–22.00
42. Radio Sueca	1358	220.9	0.25	11.00–16.00, 18.30–23.00
43. La Voz de Requena	1480	202.7	0.35	12.00–15.00, 19.00–23.00
44. Radio Picasent	1385	216.6	0.4	11.00–15.00, 17.00 23.00
45. La Voz de Granada	1250	240	2	07.00 00.30
47. Radio Cullera	1385	216.6	0.2	12.00–15.00, 19.00–23.00
49. Radio Chelva	1385	216.6	0.1	12.00–14.00, 20.00–22.00
50. La Voz de Cataluna	1079	278	5	07.00–24.00
51. Radio Mora de Ebro	1385	216.6	0.04	11.00–15.00, 19.00–23.00
52. Radio Vendrell	1385	216.6	0.06	11.30–14.30, 19.00–22.30
53. Radio Roda de Ter	1480	202.7	0.04	12.00–14.00, 19.00–21.00
54. Radio Cardona	1480	202.7	0.07	18.00–21.00
55. La Voz de Ausona	1079	278	0.7	11.00–23.00
56. Radio Blanes	1079	278	0.5	11.00–15.00, 19.00–22.00
57. La Voz de Navarra	1079	278	5	09.00–16.00, 19.00–23.00
59. Radio Manises	1480	202.7	0.5	09.00–23.00
61. Radio Adra	1079	278	0.1	12.30–16.00, 19.00–22.00
62. La Voz de Burriana	1480	202.7	0.4	10.00–23.00

RADIO NACIONAL DE ESPAÑA

HABLA PARA EL MUNDO HORAS EN GMT

En chino: De 11.45 a 12.15 por 9360 kc
De 14.30 a 15.00 por 9360 kc

En árabe: De 15.30 a 17.30 por 9360 kc
Para Marruecos por 6130 kc
De 14.00 a 14.45, de 18.45 a 19.30
De 23.30 a 00.15

En ucraniano: De 03.30 a 03.45 por 7105 kc
De 12.45 a 13.00 por 7105 kc
De 16.25 a 16.40 por 9615 kc

En checo: De 03.45 a 04.00 por 7105 kc
De 13.00 a 13.15 por 7105 kc
De 16.40 a 16.55 por 9615 kc

En croata: De 04.15 a 04.30 por 7105 kc
De 13.30 a 13.45 por 7105 kc
De 17.15 a 17.30 por 9615 kc

En leton: De 04.00 a 04.15 por 7105 kc
De 13.15 a 13.30 por 7105 kc
De 16.55 a 17.15 por 9615 kc

En ruso: De 04.30 a 05.00 por 7105 kc
De 13.45 a 14.15 por 7105 kc
De 17.30 a 18.00 por 9615 kc
De 11.00 a 11.30 por 9615 y 9360 kc
De 19.00 a 19.30 por 9360 kc
De 07.00 a 07.30 por 9360 kc

En bieloruso: De 17.30 a 17.50 por 9360 kc
De 19.40 a 20.00 por 9360 kc

En estoniano: De 05.00 a 05.15 por 7105 kc
De 14.15 a 14.30 por 7105 kc
De 18.00 a 18.20 por 9615 kc

En búlgaro: De 05.15 a 05.30 por 7105 kc
De 14.30 a 14.45 por 7105 kc
De 18.20 a 18.35 por 9615 kc

En lituano: De 05.30 a 05.45 por 7105 kc
De 14.45 a 15.00 por 7105 kc
De 18.35 a 18.55 por 9615 kc

En eslovaco: De 05.45 a 06.00 por 7105 kc
De 15.00 a 15.15 por 7105 kc
De 18.55 a 19.10 por 9615 kc

En húngaro: De 06.00 a 06.20 por 7105 kc
De 15.15 a 15.35 por 7105 kc
De 19.10 a 19.30 por 9615 kc

En rumano: De 06.20 a 06.40 por 7105 kc
De 15.35 a 15.55 por 7105 kc
De 19.30 a 19.50 por 9615 kc

En polaco: De 06.40 a 07.10 por 7105 kc
De 15.55 a 16.25 por 7105 kc
De 19.50 a 20.20 por 9615 kc

En albanes: De 17.50 a 18.05 por 9360 kc
De 20.00 a 20.15 por 9360 kc

En macedones: De 07.10 a 07.30 por 7105 kc
De 20.00 a 20.25 por 7105 kc

En inglés: (Para Inglaterra): De 20.20 a 20.50 horas, por 9360 kc – (EE.UU. Costa Atlantica): De 03.15 a 04.00 horas, por 6130 y 9360 kc - (EE.UU. Costa Pacifico): De 04.15 a 05.00 horas, por 6130 y 9360 kc
(EE.UU. General para los Estados): De 05.15 a 06.00 horas, por 6130 y 9360 kc

En francés: De 20.50 a 21.20 horas, por 9360 kc
(Para Marruecos): 13.15 a 14.00, 18.00 a 18.45, 22.45 a 23.30 horas por 6130 kc

En alemán: De 21.20 a 21.40 horas, por 7105 y 9360 kc

En italiano: De 21.40 a 22.00 horas, por 7105 y 9360 kc

En portugués: (Para Brasil): De 22.15 a 22.45 por 9360 y 11815 kc

En español: (Para españoles residentes en América): De 22.45 a 24.00 por 9360 y 6140 kc – (Para Hispanoamérica): De 00.00 a 03.00 por 9360 y 6140 kc – (Para Filipinos): De 11.15 a 12.15 por 15420 kc – De 01.00 a 02.00 por 9370 kc – Para Marruecos por 6130 kc: De 12.30 a 13.15 de 17.15 a 18.00, de 22.00 a 22.45-Atlántica: De 20.30 a 22.00 por 6130 kc Misioneros en Oriente: De 12.15 a 12.30 por 9360 kc – Para españoles residentes en el Extranjero: De 16.30 a 21.15 por 7105 kc España en la prensa del dia: De 10.15 a 11.15 por 6130 kc – Programa Nacional para Canarias: De 07.10 a 24.00 por 9380 kc

Treinta y cuartro servicos informativos, en veintidos idiomas llevan asi a todos los paises LA VOZ DE ESPAÑA.

RADIO NACIONAL DE ESPAÑA

SPEAKS TO THE WORLD TIMES IN GMT

In Chinese: From 11.45 to 12.15 on 9360 kc
From 14.30 to 15.00 on 9360 kc

In Arabic: From 15.30 to 17.30 on 9360 kc
To Morocco on 6130 kc: From 14.00 to 14.45, 18.45 to 19.30, 23.30 to 00.15

In Urainian: From 03.30 to 03.45 on 7105 kc
From 12.45 to 13.00 on 7105 kc
From 16.25 to 16.40 on 9615 kc

In Czech: From 03.45 to 04.00 on 7105 kc
From 13.00 to 13.15 on 7105 kc
From 16.40 to 16.55 on 9615 kc

In Croatian: From 04.15 to 04.30 on 7105 kc
From 13.30 to 13.45 on 7105 kc
From 17.15 to 17.30 on 9615 kc

In Latvian: From 04.00 to 04.15 on 7105 kc
From 13.15 to 13.30 on 7105 kc
From 16.55 to 17.15 on 9615 kc

In Russian: From 04.30 to 05.00 on 7105 kc
From 13.45 to 14.15 on 7105 kc
From 17.30 to 18.00 on 9615 kc
From 11.00 to 11.30 on 9615, 9360 kc
From 19.00 to 19.30 on 9360 kc
From 07.00 to 07.30 on 9360 kc

In Bielorussian: From 17.30 to 17.50 on 9360 kc
From 19.40 to 20.00 on 9360 kc

In Estonian: From 05.00 to 05.15 on 7105 kc
From 14.15 to 14.30 on 7105 kc
From 18.00 to 18.20 on 9615 kc

In Bulgarian: From 05.15 to 05.30 on 7105 kc
From 14.30 to 14.45 on 7105 kc
From 18.20 to 18.35 on 9615 kc

In Lithuanian: From 05.30 to 05.45 on 7105 kc
From 14.45 to 15.00 on 7105 kc
From 18.35 to 18.55 on 9615 kc

In Slovak: From 05.45 to 06.00 on 7105 kc
From 15.00 to 15.15 on 7105 kc
From 18.55 to 19.10 on 9615 kc

In Hungarian: From 06.00 to 06.20 on 7105 kc
From 15.15 to 15.35 on 7105 kc
From 19.10 to 19.30 on 9615 kc

In Rumanian: From 06.20 to 06.40 on 7105 kc
From 15.35 to 15.55 on 7105 kc
From 19.30 to 19.50 on 9615 kc

In Polish: From 06.40 to 07.10 on 7105 kc
From 15.55 to 16.25 on 7105 kc
From 19.50 to 20.20 on 9615 kc

In Albanian: From 17.50 to 18.05 on 9360 kc
From 20.00 to 20.15 on 9360 kc

In Macedonian: From 07.10 to 07.30 on 7105 kc
From 20.00 to 20.25 on 7105 kc

In English: (to Gt. Britain): From 20.20 to 20.50 on 9360 kc – (to USA, Atlantic Coast): From 03.15 to 04.00 on 6130/9360 kc – (to USA, Pacific Coast): From 04.15 to 05.00 on 6130/9360 kc – (to USA all States): From 05.15 to 06.00 on 6130/9360 kc

In French: From 20.50 to 21.20 on 9360 kc
(to Morocco): From 13.15 to 14.00, 18.00 to 18.45, 22.45 to 23.30 on 6130 kc

In German: From 21.20 to 21.40 on 7105/9360 kc

In Italian: From 21.40 to 22.00 on 7105/9360 kc

In Portuguese: (to Brazil): From 22.15 to 22.45 on 9360/11815 kc

In Spanish: (to Spaniards living in America): From 22.45 to 24.00 on 9360/6140 kc – (to Latin America): From 00.00 to 03.00 – 9360/6140 kc – (to Philippines): From 11.15 to 12.15 on 15420 kc – From 01.00 to 02.00 on 9370 kc – (to Morocco) on 6130 kc: – From 12.30 to 13.15, 17.15 to 18.00, 22.00 to 22.45 (Atlantic): From 20.30 to 22.00 on 6130 kc (to Missionaries in the East): – From 12.15 to 12.30 on 9360 kc – (to Spaniards living in Foreign Countries): From 16.30 to 21.15 on 7105 kc – (Spanish Press Review): From 10.15 to 11.15 on 6130 kc – (National Prgr. to Canary Islands): From 07.10 to 24.00 on 9380 kc

THE VOICE OF SPAIN brings thirtyfour informatory broadcasts in twentytwo languages to all countries.

INT-SIG: Xylophone – V. by letter. Rp.

F.PL: new st: 58 La Voz de Andalucia – PUB: Bulletin for local listeners.

CADENA AZUL DE RADIODIFUSION

(Delegación Nacional de Juventudes)

Organization: For the educational work of Radio in Spain and for training of people engaged with Radio.

ADDR: Reina 33, Madrid 4 – Cable: Cadenazul – Te: 231-24-02. L.P: Dir. Gen: J. Suaréz A. Dir. Tec: M. A. Martinez B.

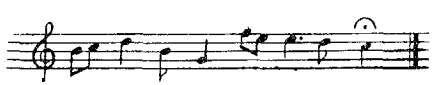
STATIONS: Call: EFJ–. Name: R. Juventud de–.

Call Name	kc	m	kW	h of tr.
1. España	1106	271.2	2	07.00–24.00
2. Soria	1187	252.7	2	10.00–24.00
3. Martorell	1187	252.7	0.1	13.00–16.00, 20.00–23.00
4. Igualada	1187	252.7	0.1	13.00–16.00, 20.00–23.00
5. Cadiz	1187	252.7	2	10.00–24.00
6. Almansa	1187	252.7	0.1	13.00–16.00, 20.00–23.00
7. Plasencia	1187	252.7	0.8	13.00–16.00, 20.00–23.00
8. Ribadavia	1187	252.7	0.4	13.00–16.00, 20.00–23.00
9. Guadalajara	1250	240.0	0.8	13.00–16.00, 20.00–23.00
10. Algemesi	1106	271.2	0.8	13.00–16.00, 20.00–23.00
11. La Coruña	1106	271.2	2	08.00–01.00
12. Sabadell	1106	271.2	0.8	12.00–16.00, 19.00–24.00
13. Granollers	1187	252.7	0.28	12.00–16.00, 19.00–24.00
14. San Feliú	1187	252.7	1	10.00–24.00
15. Barcelona	1250	240.0	5	07.00–02.00
16. Mérida	1106	271.2	0.8	13.00–16.00, 20.00–23.00
17. Ayora	1250	240.0	0.08	13.00–16.00, 20.00–23.00
18. Villacarrillo	1187	252.7	0.8	12.00–16.00, 19.00–24.00
19. Murcia	1106	271.2	2	08.00–01.00
20. Villanueva	1106	271.2	0.04	13.00–16.00, 20.00–23.00
21. Barbastro	1187	252.7	0.8	12.00–16.00, 19.00–24.00
22. Menorca	1187	252.7	0.8	13.00–16.00, 20.00–23.00
23. Albacete	1187	252.7	2	10.00–24.00
24. Molins de Rey	1187	252.7	0.1	13.00–16.00, 20.00–23.00
25. Almeria	1187	252.7	2	10.00–24.00
26. Cartagena	1187	252.7	0.8	10.00–24.00
28. Baza	1250	240.0	0.8	13.00–16.00, 20.00–23.00
29. Ponferrada	1187	252.7	0.8	12.00–24.00
30. Laredo	1187	252.7	0.4	12.00–24.00
31. Balaguer	1250	240.0	2	12.00–16.00, 19.00–24.00
32. Motril	1187	252.7	0.08	12.00–16.00, 19.00–24.00
33. Villena	1250	240.0	0.4	13.00–16.00, 20.00–23.00
34. Osuna	1250	240.0	0.8	13.00–16.00, 20.00–23.00
35. Burjasot	1187	252.7	2	10.00–24.00
36. Alcañiz	1187	252.7	0.8	13.00–16.00, 20.00–23.00
37. Talavera	1250	240.0	0.4	12.00–16.00, 19.00–24.00
38. Bejar	1250	240.0	0.4	13.00–16.00, 19.00–23.00
39. Seo de Urgel	1187	252.7	0.25	13.00–16.00, 20.00–23.00
40. Aranjuez	1187	252.7	0.4	13.00–16.00, 20.00–23.00
41. Sama de Langreo	1106	271.2	0.4	10.00–24.00
42. Eibar	1106	271.2	0.4	12.00–16.00, 19.00–24.00
43. Vizcaya	1250	240.0	2	08.00–01.00
44. Torrejavega	1250	240.0	0.8	10.00–24.00
45. Inca	1106	271.2	2	10.00–24.00
46. Zaragoza	1106	271.2	2	08.00–01.00
47. Melilla	1250	240.0	0.4	13.00–16.00, 20.00–23.00
48. Monforte de Lemos	1250	240.0	0.4	13.00–16.00, 20.00–23.00
49. Villareal	1106	271.2	2	13.00–16.00, 20.00–23.00
50. Calahorra	1250	240.0	0.8	12.00–24.00
51. Ayamonte	1106	271.2	0.8	13.00–16.00, 20.00–23.00
52. Aranda de Dureo	1250	240.0	0.8	12.00–16.00, 19.00–24.00
53. Miranda de Ebro	1187	252.7	0.4	13.00–16.00, 20.00–23.00
54. San Clemente	1250	240.0	0.8	13.00–16.00, 20.00–23.00
55. Gibraltar	1187	252.7	1	10.00–24.00
56. Malaga	1106	271.2	2	07.00–02.00
57. Canarias	1106	271.2	1	10.00–24.00
58. Felanitx	1250	240.0	0.08	13.00–16.00, 20.00–23.00
59. Ciudad Rodrigo	1106	271.2	0.08	13.00–16.00, 20.00–23.00
60. Valdepeñas	1250	240.0	2	12.00–16.00, 19.00 24.00

FM: EFJ1 88.9Mc 0.25kW.

D.PRGR: Consist of cultural and educational prgrs, information service about the youth-work, actualities and entertainment.

ANN: "Habla RADIO JUVENTUD DE... Estacion num... de la Cadena Azul de Radiodifusion". INT-SIG: Vibrafon. V. by QSL-card.



SOCIEDAD ESPANOLA DE RADIODIFUSION (Comm.)

FI: By adv – ADDR: Av. de José Antonio 32, Apt. 745, Madrid. Cable: SER. Te: 2-22-11-81 – L.P: Pres: A. G. Diaz-Canabate. Dir. Gen: E. Fontán Pérez. Subdir. Gen, Sec Gen: R. Varela Pol. Dir. Tec: F. Martinez Gonzales.

STATIONS (Main st's):

	Call	kc	m	kW	h of tr.
R. Barcelona	EAJ1	827	362.7	10	05.15–24.00
R. Valencia	EAJ3	1259	238.3	5	06.00–24.00
R. Galicia	EAJ4	1448	207.2	2	10.00–23.00
R. Sevilla	EAJ5	800	375.0	5	07.30–24.00
R. Madrid	EAJ7	809	370.8	20	07.00–24.00
R. San Sebastian	EAJ8	1025	292.7	5	07.00–24.00
R. Reus	EAJ11	1412	212.5	2	09.30–24.00
R. Bilbao	EAJ28	1133	264.8	5	06.00–24.00
R. Alicante	EAJ31	1448	207.2	2	09.00–23.30
R. Alcira	EAJ54	1493	200.9	2	08.00–23.30
R. Mediterraneo Valencia FM: 97Mc				5	10.00–14.00, 17.00–22.30

ASSOCIATED STATIONS:

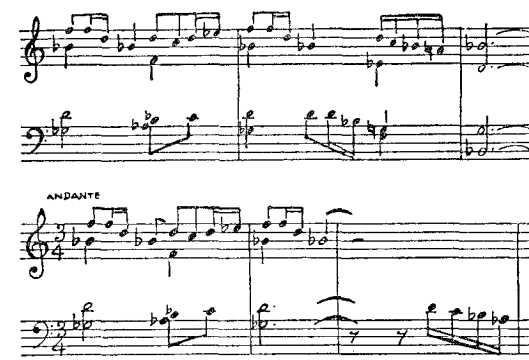
	Call	kc	m	kW	h of tr.
R. Requete de Navarra (Pamplona)	EAJ6	1492	201.1	2	09.00–24.00
R. Mallorca	EAJ13	1430	209.8	5	07.55–24.00
R. Castellon	EAJ14	1502	199.7	2	08.00–24.00
R. Granada	EAJ16	1448	207.2	2	08.00–24.00
R. Murcia	EAJ17	1511	198.5	2	07.00–24.00
R. Rioja (Logrono)	EAJ18	1487	202.1	2	08.30–24.00
R. Asturias (Oviedo)	EAJ19	1268	236.6	5	09.00–24.00
R. Huesca	EAJ22	1475	203.4	2	09.30–24.00
R. Gandia	EAJ23	1412	212.5	2	08.00–24.00
R. Castilla (Burgos)	EAJ27	1448	207.2	2	11.00–24.00
R. Santander	EAJ32	1484	202.2	2	10.00–24.00
R. Gijon	EAJ34	1492	201.1	2	10.00–24.00
R. Gerona	EAJ38	1511	198.5	0.2	10.00–24.00
R. Pontevedra	EAJ40	1493	200.9	2	11.00–24.00
R. Curuna	EAJ41	1295	231.7	2	12.00–24.00
R. Albacete	EAJ44	1493	200.9	2	09.30–23.30
R. Valladolid	EAJ47	1475	203.4	2	09.00 24.00
R. Vigo	EAJ48	1403	214.0	2	07.00–24.00
R. Las Palmas	EAJ50	1313	228.5	0.5	08.00–24.00
R. Manresa	EAJ51	1492	201.1	2.5	11.00–24.00
R. Extremadura	EAJ52	1484	202.2	2	08.00–24.00
R. Salamanca	EAJ56	1331	225.4	2	10.00–24.00
R. Jerez	EAJ58	1492	201.1	2	11.00–23.00
R. Almeria	EAJ60	1420	211	1	09.30–24.00
R. Jaén	EAJ61	1450	207	2	10.00–24.00
R. Vitoria	EAJ62	1385	216.6	2	09.00–24.00
R. Leon	EAJ63	1502	199.7	2	09.00–24.00
R. Segovia	EAJ64	1502	199.7	2	11.00–24.00
R. Ciudad Real	EAJ65	1493	200.9	2	10.30–23.00
R. Lugo	EAJ68	1487	201.7	3	10.00–24.00
R. Zamora	EAJ72	1375	218	2	10.00–24.00
R. Zaragoza	EAJ101	872	344	30	07.00–24.00
R. Alcoy	EAJ102	1223	245.2	1.3	11.00–24.00

Further for the purpose of comm. broadc. the following st's are associated, although belonging to the net's indicated: EOP15 (COPE), EOP14 (COPE), EOP29 (COPE), EFJ56 (Cadena Azul).

NATIONAL SERVICE:

The prgr's of Sociedad Espancla are rel. simultaneously by all st's at the following hours: Mo: 20.00–20.45, 21.30–22.00; Tues, Fri: 19.30–20.45, 21.30–22.30; Sat: 19.30–20.45, 21.30–24.00; Sun: 16.00–19.00.

ANN: Nat. Sce: "Transmite la Sociedad Espanola de Radiodifusion". Local Service: "Transmite R... de la Sociedad Espanola de Radiodifusion" – INT-SIG: Harp, piano:



V. by letter. Records accepted. PUB: "ONDAS" fortnightly.

Advertisement

RED DE EMISORAS DEL MOVIMIENTO (R.E.M.)

EFE 1 "La Voz de Valladolid"
Angustias, 1
Valladolid.

EFE 4 "La Voz de Palencia"
Becerro de Bengoa s/n.
Palencia.

EPE 5 "La Voz de León"
Ordoño II, 28
León.

EPE 6 "La Voz de Extremadura"
General Primo de Rivera, 1
Cáceres.

EPE 8 "La Voz de Alicante"
Angel Lozano 14
Alicante.

EPE 10 "La Voz de Alava"
Calvo Sotelo, 34
Vitoria.

EPE 13 "La Voz de Sagunto"
Trinidad, 7
Sagunto (Valencia).

EPE 14 "LA VOZ DE MADRID"
Emisora Central
Ayala num. 15
Madrid-1.

EPE 15 "La Voz del Ferrol"
José Antonio, 75—77
El Ferrol (La Coruña).

EPE 17 "La Voz de Levante"
Pascual y Genis, 25
Valencia.

EPE 18 "La Voz de la Ribera Valenciana"
Moncada, 14
Játiva (Valencia).

EPE 19 "La Voz de Castellón"
Avenida Cernuda y Velasco s/n.
Castellón.

EPE 22 "La Voz del Principado de Asturias"
Asturias, 9
Oviedo.

EPE 23 "La Voz de Guipúzcoa"
Victor Pradera 12
San Sebastian.

EPE 24 "La Voz de Orihuela"
Ramón y Cajal, 38
Orihuela (Alicante).

EPE 25 "La Voz de Cantabria"
Pasaje del Arcillero, 2
Santander.

EPE 31 "La Voz de Vigo"
Avenida García Barbón, 3
Viga (Pontevedra).

EPE 33 "La Voz del Mediterráneo"
Hermanos Landa, 21
Tarragona.

EPE 40 "La Voz de la Costa Brava"
Ave Maria, 3
Palamós (Gerona).

EPE 50 "La Voz de Cataluña"
Córcega 291
Barcelona-8.

EPE 55 "La Voz de Ausona"
San Antonio, 4
Vich (Barcelona).

EPE 57 "La Voz de Navarra"
Navarro Villoslada 17
Pamplona.

COMPAÑIA DE RADIODIFUSION INTERCONTINENTAL (Comm.)

ADDR: Diego de León 50, Madrid. Cable: Ondatlantic – L.P: Dir. Gen: D. Serrano-Suner Polo.
STATION: EAJ29 953kc 314.8m 20kW.
AKG, Austria: Studio equip (recorders, microphones).
HOME SCE: D 07.45–02.00.
ANN: "Aqui R. Intercontinental, Madrid" – INT-SIG: Xylophone.

V. by QSL-card or by letter
Records accepted.

AFFILIATED STATIONS:

Name	kc	m	kW	Name	kc	m	kW
R. Alcoy	1490	201	0.8	R. Onteniense	1500	200	0.5
R. Algeciras	1511	198	1.5	R. Orense	1492	201	0.2
R. Alicante	7940	37.78	1.2	R. Asturias	1258	238	0.35
R. Almeria	1493	201	0.2	R. Andorra	998	301	140
R. Cadiz	1496	201	0.2	R. Elche	1519	197	0.2
R. Cordoba	1447	207	0.2	R. Gibraltar	1250	240	1.25
R. Huelva	850	352	2	R. Tenerife	1097	273	1.25
R. Lérida	1492	201	0.2	R. Inca (Baleares)	1106	271	2
R. Linares	1492	201	0.2	R. Miramar Barcelona	1313	228.5	1.5
R. Lugo	1500	200	0.2				
R. Málaga	987	308	8				

R. ESPAÑA

AD: Allowed all day – ADDR: Manuel Silvela, 9 Madrid 10. Te: 2-23-29-40. Cable: Radiospana – L.P: Dir: M. García Molina. Dir. Tec: L. Caceres.
HOME SCE: Madrid EAJ2 854kc 351.2m 15kW: 07.00–01.00.

R. ESPAÑA DE BARCELONA

ADDR: Ramblas 126, Barcelona 2. Te: 2-22-07-51 – L.P: Dir. Gen: G. S. de la Pompa. St. Mgr: A. B. Moras – HOME SCE: EAJ15 1124kc 266.9m 5kW: 06.00–01.00 – V. by letter.

RUEDA DE EMISORAS RATO

ADDR: Jorge Juan, 27 Madrid – Te: 2-76-04-07 – L.P: Dir. Gen: R. Rato. Dir. Publicity: A. Ceballos.
MAIN STATION: EAJ49 R. Toledo 1142kc 262.7m 5kW.
HOME SCE: 09.00–16.00, 18.00–23.00.
Branch Stations: 10.30–16.00, 19.30–22.30.

	kc	m	kW		kc	m	kW
EAJ60 R.Almeria	1394	215.2	2	EAJ19 R.Asturias	1268	236.6	5
EAJ26 R.Antequera	1367	219.5	2	EAJ59 R.Cadiz	1322	226.9	2
				EAJ35 R.Panades	1094	274	2

INT-SIG: Electric gong (two tones) – V. by letter. Records accepted.

CADENA DE ONDAS POPULARES ESPANOLA

ADDR: Avda. José Antonio, 55 (Los Sótanos-25), Madrid 13 – L.P: Dir. of Prgr. Central Sec's: P. Gonzales Candonedo.
STATIONS: R. Popular. EOP num—.

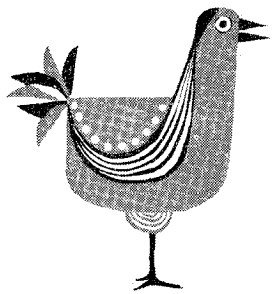
	No.	kc	kW		No.	kc	kW
Sevilla	2	1097	2	San Javier	30	1142	1
Burgos	3	1097	2	Alicante	31	1358	2
Pamplona	4	1322	2	Elda	32	1279	1
Zaragoza	6	1322	2	Villacañas	36	1097	2
Noreña	10	1142	2	Benavente	37	1142	1
Murcia	12	1349	2	San Sebastian	44	1322	2
Bilbao	13	1304	2	Albacete	46	1097	2
Huelva	14	1322	2	Astorga	48	1097	2
Lerida	15	1097	2	Alcira	56	1205	1
Mallorca	18	1358	2	Tarazona	63	1358	2
Salamanca	19	1142	2	Loyola	66	1142	1
Badajoz	21	1142	2	Menorca	67	1322	2
Ciudad Real	22	1358	2	Jaca	76	1279	2
Puertollano	23	1322	1	Puente Genil	80	1322	2
Ibiza	24	1322	1	Pozoblanco	81	1358	–
León	25	1052	2	Figueras	82	1097	2
Cieza	28	1142	1	Guimar	83	1304	1
Lorca	29	1322	1				
Stations under construction:							
Madrid	1	1142	2	El Ferrol	43	1322	2
Valencia	5	1097	2	La Coruña	50	1358	2
Barcelona	7	1304	2	Tarragona	53	1322	2
Vigo	33	1142	2	Lugo	58	1097	2
Granada	39	1322	2	Moncada	–	———	–

V. by QSL-card or letter.

SYNDICAL ORGANISATION STATIONS (belonging to Organización Nacional de Sindicatos) – Call=ECS—V=Voz.

C.	Name	kc	m	kW
1	R. Teruel	1484	202	2
2	R. Bajadoz	1385	217	5
3	R. Gredos	890	337	15
4	R. Atlántico	1484	202	5
5	Voz de Gran.	1385	217	5
6	R. Tortosa	1250	240	2
7	Voz de Urgel	1385	217	2
8	R. Tudela	1484	202	2
9	R. Maresma	1385	217	5
10	V. de la Manc.	1106	271	2
11	R. Ronda	1484	202	2
12	R. Atalaya	1520	197	2
13	R. Coral	1250	240	2
14	Voz de Gerona	1250	240	2
15	R. Marbella	1385	217	2
16	V. de Guadix	1484	202	0.5
17	V. de Martos	1358	221	2
18	R. Cazorla	1385	217	1
19	Voz de Cinca	1484	202	2
20	Voz de Ubeda	1187	253	2
21	Voz de Baeza	1484	202	2
22	R. Huéscar	1484	202	0.25
23	Voz del Guadalquivir	1484	202	0.5
24	V. de la Isla de La Palma	1520	197	0.5
25	Voz del Valle	1484	202	0.5
26	Ondas del Sil	1106	271	1.5
28	R. Estepona	1484	202	1
29	Voz del la Alpujarra	1385	217	0.25
30	R. Peñarroya	1250	240	2
31	R. Jumilla	1484	240	1
32	Voz del Gallo	1484	202	1
33	R. Marchena	1520	197	0.5
34	Voz de la Sierra	1385	217	0.25
35	V. del Pirineo	1484	202	1
36	Voz de la Costa Dorada	1250	240	1
37	R. Ginzo de Limia	1187	253	0.8
38	R. Torrox	1187	253	0.25
39	R. Moncayo	1484	202	1
40	Voz del Bajo Aragón	1484	202	1
41	Voz del Mar	1484	202	2
42	V. de Almeria	1250	240	1
43	Voz de Loja	1250	204	0.5
44	Voz de Ciudad Real	1484	202	3
46	R. Campos de Utiel	1520	197	1
47	Voz del Llano	1520	197	0.5
48	V. de Andujar	1520	197	1
49	V. de Morella	1520	197	0.5
50	R. Montblanch	1520	197	1
51	R. Piedralaves	1484	202	0.25
52	R. Onda	1385	217	0.5
53	R. Sur	1250	240	2
54	R. Alcalá la Real	1484	202	0.5
55	Voz del Maestrazgo	1484	202	2
56	Voz del Bajo Ebro	1484	202	0.5
58	R. Tamarite	1484	202	0.5
62	Voz de los Llanos	1385	217	1
63	Voz de Archidona	1520	197	0.5
64	Voz de Hellin	1484	202	1
65	La Voz de Villarobledo	1358	221	0.5

FM: st's 1, 2, 3 and 4: 0.25kW each.



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. . . The records of Swedish birdsongs are magnificent to say the least – such nice selections . . . so little background noise

Arthur A. Allen, Cornell University.

. . . Radio Sweden have issued the most comprehensive collection of *European bird voices* . . . and about two minutes of each species . . .

James Fisher in a transmission of the BBC, January 1963.

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SR

ARMED FORCES RADIO AND TELEVISION SERVICE (US Military)
STATIONS: Alcoy, Elizondo, Rosas, Soller (Mallorca) 96.0Mc all 50W – Moron, Torrejon, Zaragoza 89.7Mc 1kW – Rota 96.6Mc 250W (Navy).

SWEDEN

L.T: GMT+1 h – **Pr.L:** Swedish.

SVERIGES RADIO (Swedish Broadcasting Corporation) (Non comm, semigovt. broadc. corpo).
FI: By license payments – **ADDR:** Radiohuset, Oxenstiernsgatan 2, Stockholm, Postal Addr: Box 955, Stockholm 1, **Cable:** Broadcast. **Te:** 670865 (local 631000).
L.P: Chmn. Board of Govenors: P. Eckerberg. Dir. Gen: O. Rydbeck. Dep. Dir. & Dir. Adm: E. Mattsson. Dir. Internat. Dept: H. Hahr. Dir. Tec: J. von Utfall. Dir. Prgr. Sound: N. O. Franzén. Dir. Prgr TV: N. E. Baehrendtz. Dir. Staff: N. Ragnå. Dir. Pub. Dept: M. Ginsburg. Spec. Adviser to Dir. Gen: P. M. Hamberg. Dep. Dir. Tec: C. Wachtmeister. Dep. Dir. Prgr. TV: K. E. Lundewall – **External Relations:** Dep. Dir. Internat. Dept: Mrs. B. Svinhufvud. Secr. Internat. Dept: G. Dahlin. Eurovision Office: Mrs. M. Lamby. Head Press and Inf: Ph. von Krusenstierna.

KUNGL. TELESTYRELSEN (The Board of Telecommunications) has the responsibility for the distribution of the prgr's produced by Sveriges Radio and has also charge of the collection of license fees – **ADDR:** Stockholm 16. **Cable:** Gentel. **Te:** Trunk calls 236060, local calls: 236040 – **L.P:** Dir. Gen: H. Sterky. Chief of R. Div: E. Esping. Chief of Broadc. Sce: K. Ekström.
STATIONS: Medium Waves:

Station	Prgr.	kc	kW	Station	Prgr.	kc	kW
Boden	2	1594	0.15	Mariestad	2	1394	0.15
Borås	1	1562	2	Motala	1	191	600
	2	1394	0.15	Norrköping	1	1562	1.5
Eskilstuna	1	1562	0.5	Piteå	2	1394	0.15
Falkenberg	1	1448	0.15	Porjus	1	1529	0.075
Falun	1	1223	100		2	1594	0.075
Gävle	1	1448	0.5	Stockholm	1	773	150
Göteborg	1	980	150		2	1394	0.25
	2	1394	0.25	Sundsvall	1	593	150
Halmstad	1	1562	2		2	1394	0.15
	2	1394	0.15	Säffle	1	1448	0.15
Hudiksvall	1	1448	1.5		2	1594	0.15
	2	1394	0.15	Söderhamn	1	1562	0.06
Hälsingborg	1	1448	1.5		2	1394	0.15
Hörby	1	1178	100	Trollhättan	1	1448	2
Jönköping	1	1448	2		2	1594	0.15
	2	1594	0.2	Uddevalla	1	1562	0.5
Kalmar	1	1562	2		2	1394	0.15
Karlskrona	1	1448	1.5	Umeå	1	1448	2
Karlstad	1	1562	1.5		2	1594	0.15
	2	1394	0.15	Uppsala	1	1562	2
Kiruna	1	1562	0.5	Varberg	1	1562	2
	2	1394	0.15		2	1394	0.15
Kristinehamn	1	1448	0.15	Visby	1	1448	0.5
	2	1594	0.15	Vänersborg	2	1394	0.15
Ludvika	2	1394	0.15	Västervik	2	1394	0.15
Luleå	1	182	10	Västerås	1	1448	2
	2	1394	0.15	Örebro	1	1562	0.5
Malmberget	1	773	2	Örnsköldsvik	1	1562	1.5
	2	1394	0.15		2	1394	0.15
Malmö	1	1562	2	Östersund	1	719	150

Wired Broadc: Prgr. 1: 164kc 1829m – Prgr. 2: 209kc 1435m.
Short Waves: Hörby I, II 100kW.
6065kc 49.46m – 9620kc 31.19m

FM:	Prgr.	Mc	kW		Prgr.	Mc	kW
Arvidsjaur	1	89.4	60	Gällivare	1	90.0	60
	2	94.2	60		2	94.9	60
Boden	1	94.5	60	Gävle	1	88.1	15
	2	99.4	60		2	97.4	15
	3	90.6	15	Göteborg	1	89.3	60
Bollnäs	1	91.8	15		2	96.3	60
	2	96.0	15		3	99.4	15
Borlänge	1	89.4	60	Halmstad	1	91.2	15
	2	93.0	60		2	95.4	15
Borås	1	88.5	3	Haparanda	1	91.3	60
	2	94.6	3		2	93.6	60
Bäckefors	1	92.7	60	Hälsingborg	1	89.5	3
	2	96.8	60		2	95.7	3
Emmaboda	1	93.0	60	Hörby	1	88.8	60
	2	96.7	60		2	92.4	60
Gäddede (s)	1	88.9	0.03		3	97.0	60
	2	96.2	0.03	Kiruna	1	89.1	60

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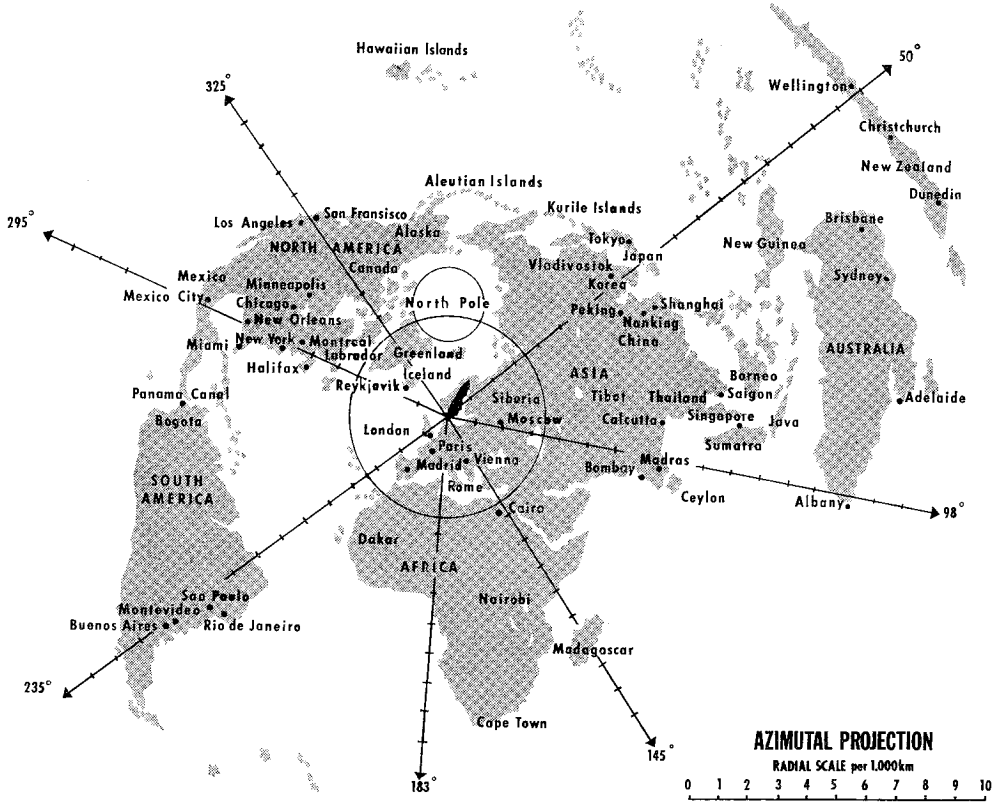


Sweden

	Prgr.	Mc	kW
Kiruna	2	92.7	60
Lycksele	1	95.4	15
	2	98.7	15
Malmö	1	93.3	3
	2	98.7	3
Mora	1	92.2	10
	2	96.7	10
Motala	1	91.1	3
	2	93.8	3
Norrköping	1	90.0	60
	2	93.5	60
Nässjö	1	89.6	60
	2	92.1	60
Pajala	1	87.9	15
	2	93.0	15
Seitevare	1	90.9	0.03
	2	93.7	0.03
Skellefteå	1	93.8	10
	2	96.3	10
Skövde	1	95.1	15
	2	97.5	15
Sollefteå	1	93.5	15
	2	98.1	15
Stockholm	1	92.4	60
	2	96.6	60
	3	99.3	60
Storuman	1	87.6	60
	2	91.2	60
Sundsvall	1	92.7	60
	2	96.9	60
	3	99.2	60
Sunne	1	90.9	60
	2	94.5	60
Sveg	1	90.6	60
	2	94.9	60
Täsjö	1	89.8	60
	2	94.7	60
Uddevalla	1	89.9	3
	2	93.1	3
Uppsala	1	90.3	3
	2	93.3	3
Varberg	1	90.4	3
	2	93.6	3
Visby	1	97.2	15
	2	99.5	15
Vislanda	1	88.0	10
	2	90.6	10
Vännäs	1	88.5	60
	2	92.1	60
Västervik	1	91.8	25
	2	96.0	25
Västerås	1	95.7	15
	2	98.0	15
Växsjö	1	88.0	10
	2	90.6	10
Örebro	1	87.9	60
	2	91.5	60
Örnsköldsvik	1	90.8	3
	2	94.4	3
Östersund	1	87.9	60
	2	91.5	60

FM st's under construction 1) before Jan. 1st, 64, 2) before July 1st 1964. * increase power. s=satellite.

	Prgr.	Mc	kW
1) Enafors (s)	88.9	92.8	0.03
1) Idre (s)	88.0	89.9	0.03
1) Gävle*	88.1	97.4	60
1) Karlskrona	89.1	95.0	6
1) Laisvall (s)	88.7	92.2	0.03
1) Lycksele*	92.9	95.4	60
1) Tärnaby (s)	88.9	95.7	0.03
2) Björkliden (s)	88.0	93.9	0.03
2) Borås*	88.5	94.6	10
2) Halmstad*	91.2	95.4	60
2) Karesuando(s)	88.4	91.5	0.3
2) Pajala*	87.9	93.0	60
2) Skövde*	95.1	97.5	60
2) Sollefteå*	93.5	98.1	60
2) Stordalen (s)	89.6	92.3	0.03
2) Strömstad (s)	91.6	94.3	0.03
2) Sysslebäck (s)	88.8	92.5	0.3
2) Torneträsk (s)	87.6	91.3	0.03
2) Vassijaure (s)	90.7	95.1	0.03
2) Västerås*	95.7	98.0	60

The Marconi Company Ltd, GB, delivered sound tr's: Boden 4×5kW, Storuman 4×5kW, Bäckefors 4×5kW, Sundsvall 4×5kW, Hörby 4×5kW, Västerås 4×5kW, Sunne 4×5kW, Östersund 4×5kW, 1×150kW, Emmaboda 4×5kW, Nässjö 4×5kW, Arvidsjaur 4×5kW, Borlänge 4×5kW, Visby 4×5kW, Lycksele 4×5kW, Västervik 4×5 kW, Halmstad 4×5kW, Vännäs 4×5kW, Uddevalla 4×1kW, Änge 4×1kW, Härnösand 4×1kW, Karlstad 4×1kW, Skellefteå 4×1kW, Växsjö 4×900W, Motala 4×900W, Sysslebäck 2×100W, Gäddede 2×10W, Karesuando 2×100W, Torneträsk 2×10W, Stordalen 2×10 W, Björkliden 2×10W, Vassijaure 2×10W, Seitevare 10W, Laisvale 10W, Tärnaby 10W, Idre 10W, Ann 10W, Funasdalen 10W, Vietas 10W.

Telefunken AG, Germany, delivered 0.25kW FM-tr, studio equip. (recorders).

AKG, Austria, delivered studio equip. (recorders, microphones).

Kathrein Antennen, Germany, delivered FM-antennas (Kungl. Telestyrelsen).

HOME SERVICE

FIRST PRGR. (light talk and music): Mo, Tues, Thurs 04.55–23.00. Wed, Fri, Sat 04.55–24.00. Sun 06.00–23.00 – **Night Prgr.** on 182/191/593/719/773/980/1178 (exc. 23.00–24.00 when 88.8Mc is used)/1223kc: Sun, Mo, Tues, Thurs 23.00–04.40, Wed, Fri 00.00–04.40. Sat 00.00–05.45.

Short Waves: 05.00–09.00 6065kc, 09.00–12.00 9620kc, 17.15–21.30 on 6065kc.

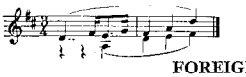
N: 07.00, 11.30, 14.00, 16.00, 17.30, 18.00, 21.00, 22.00. Mo–Fri: 05.00, 05.30, 06.00, 06.30, 10.00, 20.00. Sat: 05.00, 05.30, 05.58, 10.00 – **Wrp:** (incl. Forecast for Swedish Waters) D: 05.30, 07.00, 11.30, 18.00, 20.50. Forecast for Swedish Waters only: D 16.00 – **Rlg. Prgr's:** Morning Sce's: W: 05.20, 06.40. Sun. Divine Sce: 10.00, 16.10.

SECOND PRGR. (Light music to approx. 17.00, serious talk and music after 17.00): W 04.40–22.30 (approx), Sun 05.45–22.30 (approx). **Rlg. Prgr's:** Evening Sce's: W 21.05, Sun 21.10.

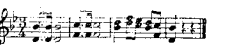
THIRD PRGR. Light music: W 17.15(Sat 16.15)–21.05, Sun 17.15–21.10.

ANN: (Nat. Prgr): "Sveriges Radio..." and the name of the transmitting st, for instance: "Sveriges Radio, Stockholm" – **INT-SIG:** Home Service 1st Prgr: The opening notes from Carl Michael Bellman's "Storm och böljor tystna re'n" and 2nd Prgr: from Bellman's "Fredmans Epistel No 64": "Fäll dina ögon och skäms nu din tåssa".

Home Service 1st Prgr:



Home Service 2nd Prgr:



FOREIGN SERVICE

Stations: Hörby 100kW.

kc	m	kc	m	kc	m	kc	m
1178	254.7	9620	31.19	11805	25.41	17840	16.84
5990	50.08	9660	31.06	11810	25.40	17845	16.81
6065	49.46	11705	25.63	15420	19.46		

EUROPEAN SERVICE: English: 22.00–22.30 6065kc, 23.30–24.00 1178kc – **French:** 20.30–21.00 5990kc, 21.45–22.15 5990kc – **German:** 21.30–22.00 6065kc, 23.00–23.30 1178kc – **Portuguese:** 22.15–22.45, **Spanish:** 21.15–21.45 5990kc.

OVERSEAS SERVICE: I=Far East; II=Ea.No.Am; III=So.Asia; IV=M.East; V=Africa; VI=So.Am; VII=We.No.Am; VIII=Mexico, C.Am. a=English, b=Swedish, c=German, d=Spanish, e=Portuguese, f=French. A: 3/11 63–1/3 64; B: 1/3 64–1/11 64.

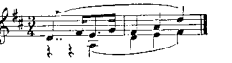
Times	Areas	L.	A	B	Times	Areas	L.	A	B
12.30–13.00	I	a	9620	9620	23.00–23.30	VI	e	11705	11705
13.00–13.45	I	b	11810	17845	23.30–00.30	VI	d	9620	9620
14.00–14.30	II	a	17840	17840	01.00–01.45	II	b	9660[1]	11805
14.45–15.15	III	a	9660	9660	01.45–02.15	II	a		
15.15–16.00	III	b	15420	15420	01.00–01.45	VI	b		
16.15–16.45	IV	a	6065	11705	01.45–02.15	VI	e	11705	11705
			11705	15240	02.15–02.45	VI	b		
16.45–17.30	IV	b	11705	11705	02.45–03.15	VI	d		
17.45–18.15	V	a	11705	11705	02.30–03.15	VII	b	9660	11805
18.15–19.00	V	b			03.15–03.45	VII	a		
19.15–19.45	V	c	11705	11705	04.00–04.30	VIII	d	9660[1]	11805
19.45–20.15	V	a							

[1] 1/1263-1/264 on 6065kc.

Radio Sweden reserves the right to alter the schedule if necessary. DX-PRGR: "Sweden calling DX'ers": English: Every Tues/Wed as last part of the English half hour at 12.30, 14.00, 14,45, 16.15, 17.45, 19.45, 22,00, 23.30, 01.45, 03.15 – **German:** Wed 19,15, 21,30, 23,00 – **French:** Sat. 17,45, 20,30, 21,45 – **Spanish:** Once weekly.

ANN: E: "This is R. Sweden" – G: "Hier ist der Schwedische Rundfunk, Stockholm" – Fr: "Ici Radio Suéde" – Sp: "Habla Estocolmo" – P: "R. Suécia apresenta" – Sw: "Sveriges Radio, Utlandsprogrammet".

INT-SIG: Foreign Sce: The opening notes from Carl Michael Bellman's "Storm och böljor tystna re'n".



V. by QSL-card, folder and/or letter. R. Sweden will appreciate all letters and reports on reception of the transmissions. Prgr.schedules by writing to Radio Sweden, Box 955, Stockholm 1.

PUB: Monthly: "Radio Sweden" in six languages: English, German, French, Spanish, Portuguese, Swedish. Weekly: "Röster i Radio-TV".

IBRA RADIO AB (Non-Comm, Non-Go, Christian)

ADDR: Box 821, Stockholm 1 – **Studios:** The main studio is Sveavägen 34, Stockholm. **Cable:** "Ibra-Radio" – **L.P:** Pres: Dr. Lewi Pethrus. Dir. Prgr: H. Carlsson.

STATIONS:	kc	m	kW	Time	Language
OQE15				Every sec.	
R. Bukava, Rep. Congo	4808	62.4	10	Sun 16.45–17.00	French
R. Litoral Cochabamba, Bolivia	6160	48.79	1.1	D 18.00–18.15	Spanish
Radio WIVV Vieques, Puerto Rico	1370	219	1	Thurs 00.30–00.45	English
R. Riquelme Coquimbo, Chile CA96	960	312	0.3	Sun	Spanish
R. Paraguay Asunción, Paraguay ZPA10	6015	49.88	1	Wed 17.15–17.30	Spanish
	1300	231	1.5		
R. Kanto, Yokohama JOKF JORF	1450	207	3	Sun	Japanese*
	1380	203	10		

* The same prgr. is also broadcast over: R. Hokkaido, Hokkaido, Japan.

R. Corrientes, Corrientes, Argentina: Every Mo 12-min. prgr. in Spanish – R. St. HCJB (The Voice of Andes): Every Wed in Swedish – CX50 – R. Independencia, Montevideo, Uruguay: Three 15-min. prgr's a week in Spanish – R. WEBH, Chicago, USA: FM-broadcast in Swedish every Sun (R. Sweden) – **PUB:** "IBRA" in a Swedish and an English edition.

Advertisement:
IBRA RADIO FEDERATION is an international federation of listeners. Anybody can become a member of this federation. **"IBRA"**, the magazine is mailed to each member. The membership fee is: Sw. Crowns 30.–, US$ 10.– or Engl. £ 1. IBRA RADIO MISSION is an organ receiving gifts in favour of the Swedish free radiowork.

SWITZERLAND (Confederation)

L.T: GMT+1 h – Pr.L: German dialects, French, Italian, Romanche.

SWISS BROADCASTING AND TELEVISION CORPORATION

(A non profit making Comp.) – FI: By license fee.

ADDR: Schweizerische Radio- und Fernsehgesellschaft (SRG), Société Suisse de Radiodiffusion et Télévision (SSR), Società Svizzera di Radiotelevisione (SSR), Swiss Broadcasting and Television Corporation (SBC): Giacomettistrasse 1, Berne. Cable: Radif. Te: (031) 44.55.55 – Schweizerischer Kurzwellendienst, Service Suisse des Ondes Courtes, Swiss Shortwave Service: Giacomottistrasse 1, Berne – Te: (031) 44.66.44 – Regional Centres: R. Zürich, Brunnenhofstr. 20, Zürich – R. Berne, Schwarztorstr. 21, Berne – R. Basel, Novarsstr. 1, Basel – R. Lausanne, Maison de la Radio, La Sallaz, Lausanne – R. Geneve, 66 Boulev. Carl Vogt, Geneve – R. Lugano, Lugano-Besso. L.P: Pres. of the Board of Adm: Dr. H. Oprecht. Dir. Gen: M. Bezençon. Head of Adm. and Deputy Dir. Gen: D. Carl. Dir. Swiss s.w. Sce: Dr. G. H. Padel. Deputy Dir. Swiss s.w. Sce: J. Curchod. Head of the Editorial Dept. in Swiss s.w. Sce: Dr. H. de May. Head of "Prgr. Operations": L. Tschannen. Dir. Swiss TV: E. Haas – Managers of the Regional Centres: Beromünster: Studio Zürich: Dr. S. Bächli. Studio Berne: M. Bolliger. Studio Basel: Dr. F. Ernst. Sottens: Studio Lausanne: J. P. Méroz, Studio Genève: R. Aubert (from Jan. 1st, 1964). Monte Ceneri: Studio Lugano: Dr. S. Molo.

HOME SERVICE

GERMAN:

First Prgr: Sun 06.45–22.15. Mo–Fri 05.15–07.30, 10.00–22.15. Sat 05.15–22.15.

	kc	m	kW		kc	m	kW
Beromünster	529	567.1	150	Coire	1367	219.5	0.5
Basel	1367	219.5	0.5	Sool	1367	219.5	0.5

FM: Relay Beromünster:

	ch	Mc		ch	Mc		ch	Mc
Valseina I	11	90.3	Hornfluh I	3	87.9	Attinghausen	28	95.3
Sils I	29	95.7	Davos	29	95.7	Poschiavo I	4	88.2
Niederhorn I	34	97.2	Tarasp	27	95.1	Gurtnellen I	30	96.0
Celerina I	33	96.9	Sool I	26	94.8	Brusio I	2	87.6
Ernen	40	99.0	Geissholz	28	95.4	Buchserberg	15	91.6
Del Tiefenk. I	27	95.1	Brig I	23	93.9	Gotschnagrat	8	89.4
Ladir I	16	91.9	Leuk	20	93.0	Klewenalp	27	95.0
						Säntis	43	99.9

Brown Boveri, Switzerland: Mw-tr's: 250kW (Beromünster), 25kW (Monte Ceneri) – Sw-tr's: 2×250kW (Beromünster).

Symphony: Tues 19.00 – N, Wrp: 05.15, 06.00(Sun 06.50), 11.30, 18.30, 21.15 – Commentary: 18.40 (18.00: Current N – Items non-political) – Fri 18.00: "World Chronicle", Mo 21.20: Review for Swiss Abroad – Mbg: Mo 19.30 – Im Auto durch die Schweiz for motorists W 06.30–07.30.

Second Prgr: D 18.00–21.15. Sun approx. 12.20–21.15. Local broadcasts in Romanche every third week: Sun 08.15 (Sermon), Fri 16.00–16.30 (Children's H, prgr. for the women, sick and elderly people, 19.00–19.30 (Current N – Items). Local broadcasts in German: Sun 17.30–18.00.

FM:	ch	Mc		ch	Mc		ch	Mc
Basel	40	99.0	Säntis	28	95.4	Celerina II	3	87.9
Uelitberg	35	97.5	Bantiger	21	93.2	Sils II	23	93.9
Sool II	40	99.0	Ladir II	31	96.4	Tarasp II	15	91.6
Leuk II	36	97.8	Davos II	3	87.9	Ernen II	28	95.4
Valzeina II	41	99.3	Hornfluh II	30	96.0	Niederhorn II	22	93.6
Geissholz II	4	88.2	Gurtnellen II	15	91.5	Buchserberg	33	96.9
Del Tiefenk. II	38	98.4	Brig II	8	89.4	Gotschnagrat	36	96.6
Klewenalp	11	90.3						

FRENCH:

First Prgr: Sun: 06.10–22.15. Mo–Thurs: 06.00–13.00, 14.59–22.15. Fri/Sat: 06.00–22.15(Sat 23.00).

Sottens 764kc 392.6m 150kW – Savièse 1367kc 219.5m 0.5kW

FM: Rel. Sottens:

	ch	Mc		ch	Mc		ch	Mc
Loeche	4	88.2	Ravoire	41	99.3	La Dôle	26	94.8
Les Ordons	24	94.2	Hornfluh	38	98.4			

Symphony: Wed 19.30, Thurs 20.30 – N, Wrp: 06.15, 11.45, 18.15, 21.30 – Commentary: 18.00 "La Suisse au micro", after 17.00 Le micro dans la vie, 18.25 Le miroir du monde (Fri: La situation internationale) – Sat 07.30–10.00 "Route Libre" for motorists.

Second Prgr: W 18.00–21.30(Fri 22.15, Sat 22.00). Sun 13.00–21.30.

FM:	ch	Mc		ch	Mc		ch	Mc
La Dôle	14	91.2	Leuk Feschel II	11	90.3	Hornfluh	15	91.5
Mt. Cornu	2	87.6	Les Ordons II	42	99.6	Ravoire	29	95.7

ITALIAN:

First Prgr: Sun: 07.00–22.15. Mo–Thurs: 06.00–07.30, 10.00–13.00, 14.59–22.15. Fri: 06.00–07.30, 10.00–22.15. Sat: 06.00–22.15.

Monte Ceneri 557kc 538.6m 50kW.

FM: Rel. Monte Ceneri:

	ch	Mc		ch	Mc		ch	Mc
M. Morello I	31	96.3	Poschavio	23	93.9	Peccia I	4	88.2
M. San			Brusio	15	91.5	Pizzo Matro	36	97.8
Salvatore I	39	98.7	Grono I	42	99.6			

Symphony: Thurs 19.30 – N, Wrp: 06.15 (Sun 07.15), 11.30, 18.15, 21.30 – Commentary: 18.20 – Mbg: Sun 13.15 – Sat 08.30 No-Stop (for motorists).

Second Prgr: W: 18.00–21.30. Sun: 14.15–16.15, 19.00–21.30.

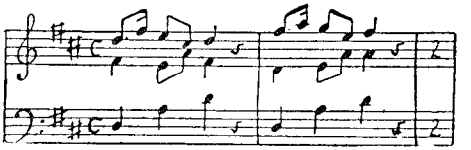
FM:	ch	Mc		ch	Mc		ch	Mc
M. Ceneri II	8	89.4	M. San			Peccia II	23	93.9
M. Morello II	6	88.8	Salvatore II	20	93.0	Grono II	26	94.8

JOINT PRGRS: (Beromünster, Sottens, Monte Ceneri): Mo–Sat 10.00–11.00 (First Prgr.) and 18.00–19.00 (Second Prgr.).

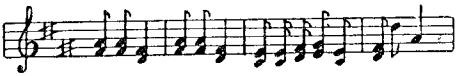
ANN: Beromünster: "Schweizerischer Landessender Beromünster". Sottens: "Sottens – émetteur national suisse". Monte Ceneri: "Radio della Svizzera italiana – Stazione nazionale de Monte Ceneri".

INT-SIG: Beromünster:

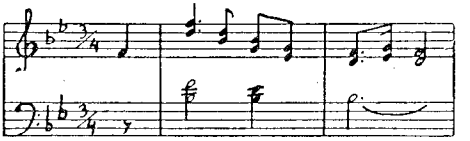
Radio Basel: "Z'Basel a mym Rhy".



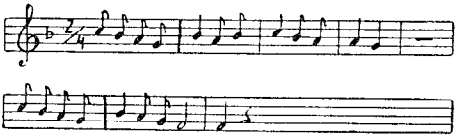
Radio Bern: "D'Zyt isch do".



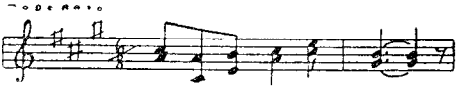
Radio Zürich: "Chum Bueb und lueg dis Ländli a".



Sottens: Radio Geneve: "Quelle fatale journée" chanson de l'Escalade.



Sottens: Radio Lausanne: "Voici la mi-été".



Monte Ceneri: "Campagne delle Chiesa di Pazzalino".

V. Any messages from our listeners and viewers are most welcome. Both QSL-card and letter are used – PUB: "Radio+Fernsehen". Schweizer Radio-Zeitung. "Radio TV- Je vois tout". "Radiotivù". Prgr.sched. for Shortwave Sce. twice a year.

FOREIGN SERVICE

Schwarzenburg: 100kW (output power).

Call	kc	m	Call	kc	m	Call	kc	m
HEI22	6050	49.59	HED6	9655	31.07	HEU6	15315	19.59
HER2	6055	49.55	HEU3	9665	31.04	HEU7	17720	16.93
HER3	6165	48.66	HEI5	11715	25.61	HEI8	17795	16.86
HED2	7110	42.19	HER5	11865	25.28	HER33	17845	16.81
HER4	9535	31.46	HER6	15305	19.60	HER8	21520	13.94

EUROPEAN SERVICE

German, French, Italian on 6165/9535kc: W 05.45–06.40, 11.00–13.00, 15.00–22.45. Sat 05.45–06.40, 11.00–22.45. Sun 06.45–22.45. N: Ger-

man: 06.00(W), 06.50(Sun), 11.30, 18.30, 22.00. **French:** 06.15, 11.45, 18.15, 21.30. **Italian:** 06.30(W), 12.10, 22.30. **Esperanto:** Mo, Wed 12.20, Thurs, Sat 21.15.

AFRICAN SERVICE

English: D 07.00–08.45 on 15305/15315/17795kc – **French:** D 18.45–19.15 on 7110/9665kc – **Portuguese:** D 06.40–07.00 on 15305/15315/17795kc – **German, French, Italian** (rebroadc. of European Sce): W 05.45–06.40 on 6165/9535/15305/17795kc, 11.00–12.30 on 6165/9535/21520kc, 15.00–17.30 on 6165/9535kc, 17.30–22.45 on 6165/9535/9655/11715kc. Sun 06.45–22.45 on 6165/9535kc, 11.00–12.30 on 21520kc, 17.30–22.45 on 9655/11715kc.

GENERAL OVERSEAS SERVICE

English	Beamed Areas	kc
09.00–10.45	Au, N.Z, F. East	9655/17720/21520
11.50–12.30	U.K, Ireland	7110/9665
12.45–14.30	So. Ea. Asia, Japan	11865/15315/17845
14.45–16.30	India, Pakistan	9665/11865
14.45–16.30	No. America II (We. Coast)	15315
16.45–18.30	Middle East	6055/9665
19.30–21.15	U.K, Ireland	6055/7110
01.30–03.15	No. America I (Ea. Coast)	6165/9535/9665

Prgrs. in all tr's:

N: 5 min. after beginning of each tr.

"Echoes from Switzerland" (topical events and folk music): D exc. Sun – **Religious Talk:** Sun – **"Mailbag" or "Swiss Quiz":** Sun **"Youth Magazine" and "The Feminine Touch":** Mo (alternating) – **"...wish you were here":** (Musical Postcards from Switzerland): Mo – **"Announcer's Choice"** (favourite recordings of SBC's announcers and editors): Tues – **"Swiss Gazette"** (Life and People) Tues – **"Close-up"** (*Swiss personalities and institutions*): Wed **"Melody Train"** (*request* prgr): Wed, Sun – **"Jazz Panorama":** Thurs **"Let's Tell a Tale":** (bedtime tales of mystery from the treasure chest of Swiss lore and tradition): Thurs – **"Swiss Concert Hall":** Fri – **"Swiss Shortwave Merry-Go-Round":** (entertainment for shortwave fans incl. DX features): Sat – **For the Swiss abroad:** French: Mo, Thurs – Swiss-German dialect: Tues, Fri – Italian: Wed, Sat.

Arabic: Fri 17.15–18.00 on 6055/9665kc.

Spanish: D 21.30–22.25 to Spain on 6055/7110kc, D 00.20–01.15 to So. America on 6165/11865kc, D 03.30–04.15 to C. America on 6050/6165/9535kc, D 11.00–11.35 to Spain on 7110/9665kc.

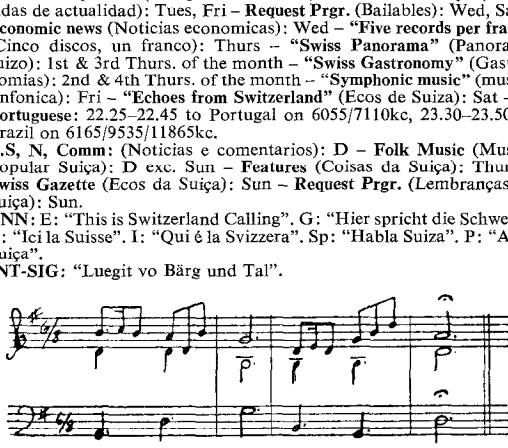
T.S, N, Comm, Musical Greetings:

"Yesterday and Today" (Ayer y hoy): Sun – **Contest** (Suiza 64): Nov–Jan. on Sun – **"A Street Scene"** (Vida de una calle): Feb–Apr. on Sun – **"What's new in the Record Library"** (Novedades de la discoteca): Mo – **Folk Music** (Musica popular): Mo, Thurs, Sun – **"Swiss Composers"** (*Compositores suizos*): Tues – **"Actuality"** (Pinceladas de actualidad): Tues, Fri – **Request Prgr.** (Bailables): Wed, Sat – **Economic news** (Noticias economicas): Wed – **"Five records per franc"** (Cinco discos, un franco): Thurs – **"Swiss Panorama"** (Panorama suizo): 1st & 3rd Thurs. of the month – **"Swiss Gastronomy"** (Gastronomias): 2nd & 4th Thurs. of the month – **"Symphonic music"** (musica sinfonica): Fri – **"Echoes from Switzerland"** (Ecos de Suiza): Sat – **Portuguese:** 22.25–22.45 to Portugal on 6055/7110kc, 23.30–23.50 to Brazil on 6165/9535/11865kc.

T.S, N, Comm: (Noticias e comentarios): D – **Folk Music** (Musica Popular Suiça): D exc. Sun – **Features** (Coisas da Suiça): Thurs – **Swiss Gazette** (Ecos da Suiça): Sun – **Request Prgr.** (Lembranças da Suiça): Sun.

ANN: E: "This is Switzerland Calling". G: "Hier spricht die Schweiz". F: "Ici la Suisse". I: "Qui é la Svizzera". Sp: "Habla Suiza". P: "Aqui Suiça".

INT-SIG: "Luegit vo Bärg und Tal".



V. Correct reports to P.O. Box, Berne 16, verified by QSL-card or letter. IRC if airmail reply required – **PUB:** Prgr. schedule "Switzerland Calling" (twice a year, spring and autumn) free upon request.

BROADCAST FROM THE INTERNATIONAL COMMITTEE OF THE RED CROSS, GENEVA

ADDR: R. Geneva, 66 Blvd. Carl Vogt, Geneva – **L.P:** Dir: Gen. G. Kuhne.

In Peace time: ICRC organizes occasional test transmissions (4 times a year) on the frequency of 7210kc 41.61m by courtesy of Swiss Short Wave Service. **In Times of Crisis:** ICRC broadcasts programmes containing information regarding prisoners of war and civilians on the same frequency as well as on others lent by the Swiss authorities, up to 12 hours per day – V. by QSL-card.

UNITED NATIONS BROADCASTING FROM GENEVA

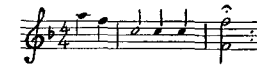
FI: by the UN Organization – **ADDR:** R. des Nations Unies, Palais des Nations, Genève. **Cable:** Omnipress. **Te:** 33.10.00. Ext. 2315/2566.

L.P: Dir. Inf: H. Samper. Chief R. Operations: I. H. Berenson.

FOREIGN SCE: 9545kc 31.43m 25kW: Mo 16.30–16.45 UN prgr. in **Russian** (USSR) on 9545kc – Fri 19.20–19.35 UN prgr. in **Arabic** (to No. Africa, M. East) on 6010/9575/11810kc (via R. Roma). During general Assembly sessions, these prgr's are transmitted daily. Monthly, on Mo at mid-month over Sottens 21.35 (R. Suisse Romande) "Le Tour du Monde des Nations Unies" (30 minutes) then by transcription to 25 different countries which broadc. in French.

ANN: E: "This is the United Nations R. in Geneve". F: "Ici les Nations Unies à Genève".

INT-SIG:



V. by QSL-card or letter.

U.S.S.R.

L.T: See time table – **Pr.L:** Russian, Ukrainian, Byelorussian, Uzbek, Tatar, Kazakh, Azerbaidjanian, Armenian, Georgian, Lithuanian, Moldavian, German, Estonian.

STATE COMMITTEE FOR BROADCASTING AND TELEVISION

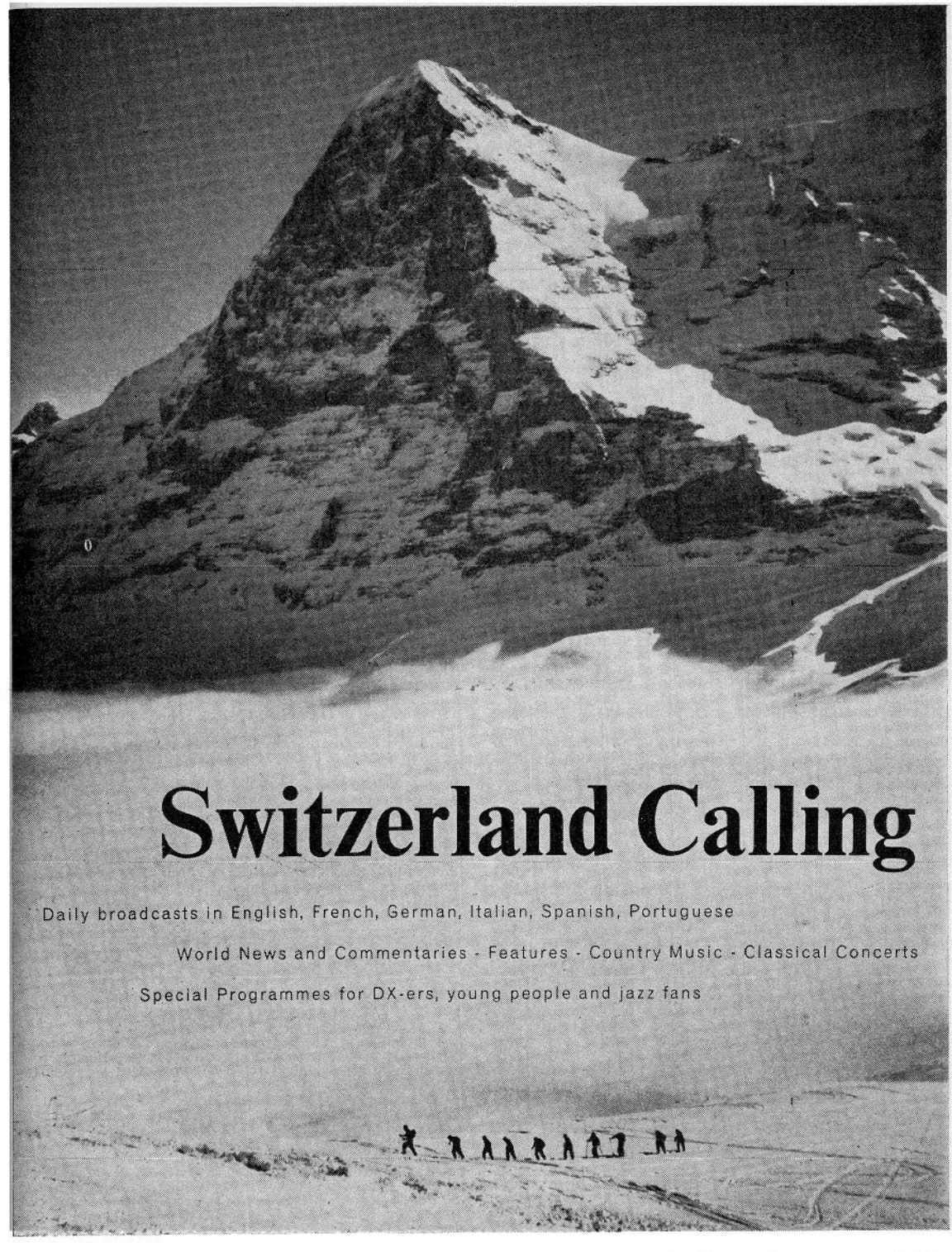
ADDR: Pjatnitskjaja ulitza 25, Moscow. **Cable:** Moskva Radio. **Te:** 37090.

L.P: Pres. of the Broadc. Committee: M. A. Harmalov. 1st Vice-Pres: E. N. Mamedov. Vice-Pres. (TV): V. I. Tjernysjev. Vice Pres: G. A. Kazakov. Dir. Tec. (Radio): V. F. Zjelezova. Chief Foreign Relations: H. A. Sarkisov.

STATIONS:

LONG & MEDIUM WAVES:

Station	kc	m	kW	H of tr.
Moscow (RSFSR)	151	1987	50	00.00–12.00, 12.50–22.00 (Sat/Sun 00.00–23.00)
Petropavlovsk (RSFSR)	155	1935	10	01.00–06.00, 08.00–11.00 18.35–21.00
Tashkent (Uzbekistan)	164	1829	50	00.00–10.00, 11.00–22.00
Moscow (RSFSR)	173	1734	500	06.00–10.00(Sun 12.00), 16.00–23.00 1. prgr.
Chita (RSFSR)	173	1734	20	22.05–16.20
Alma-Ata (Kazakhstan)	182	1648	50	00.30–09.00, 11.30–21.03
Tbilisi (Georgia)	191	1571	50	01.45–10.00, 13.00–21.03
Irkutsk (RSFSR)	200	1500	20	22.00–03.00, 04.00–19.00
Moscow II (RSFSR)	200	1500	100	03.00–12.20
Kiev I (Ukraine)	209	1435.5	150	01.55–12.00, 13.00–23.00
Baku (Azerbaijan)	218	1376	50	01.55–10.05, 12.55–22.00
Krasnoyarsk (RSFSR)	218	1376	50	23.00–08.00, 09.00–18.00
Tselinograd (Kazakhstan)	227	1322	50	as 182kc
Moscow I (RSFSR)	236	1271	100	as 151kc
Leningrad (RSFSR)	236	1271	100	02.00–23.00
Magadan (RSFSR)	236	1271	20	18.00–13.00
Vladivostok (RSFSR)	245	1224	100	23.00–14.00
Dushambé (Tajikistan)	254	1181.1	50	23.52–09.00, 11.00–21.03
Kazan (Tatar ASSR)	254	1181.1	100	03.00–21.03
Yakuts (Yakuts ASSR)	263	1141	10	22.00–01.55, 02.00–16.00
Moscow II (RSFSR)	263	1141	150	02.00–22.00
Novosibirsk (RSFSR)	272	1103	100	23.00–07.00, 09.00–19.00
Minsk II (Byelorussia)	281	1068	100	02.00–12.00, 13.00–22.00
Ulan-Ude (Buryat ASSR)	281	1068	10	22.25–01.30, 03.30–16.30
Khabarovsk (RSFSR)	335	896		19.30–10.45
Saratov (RSFSR)	340	882.4	100	03.00–22.00
Yuzhno-Sakhal (RSFSR)	360	883	100	19.25–21.45, 01.00–11.30
Yerevan (Armenia)	362	828.7	50	02.00–10.00, 13.00–19.00
Moscow II (RSFSR)	365	820	20	03.00–21.03
Ashkhabad (Turkmenia)	375	800	10	00.55–09.00, 12.00–21.03
Moscow II (RSFSR)	385	779	50	12.30–14.00, 14.30–22.00
Moscow IV (RSFSR)	395	739.5	100	19.00–15.00
Tashkent II (Uzbekistan)	400	750	50	00.00–21.03
Minsk II (Byelorussia)	400	750	50	03.00–21.03
Odessa (Ukraine)	548	547	100	03.00–22.00
Vladivostok (RSFSR)	548	547.4	100	08.00–15.00, 21.00–23.00
Volgograd (RSFSR)	557	539	10	03.00–16.00
Riga I (Latvia)	575	521.7	100	02.58–12.00, 13.00–22.00
Frunze (Kirghizia)	611	491	10	00.00–17.00
Petrozavodsk (Kar.ASSR)	611	491	100	03.00–10.00, 13.00–22.00
Krasnodar (RSFSR)	611	491	20	
Vladivostok (RSFSR)	629	476.9	100	08.00–15.00, 21.00–22.30
Simferopol (Ukraine)	647	463	100	02.00–12.00, 13.00–21.03
Murmansk (RSFSR)	656	457.3	150	03.00–12.00, 13.00–22.00


Switzerland Calling
Daily broadcasts in English, French, German, Italian, Spanish, Portuguese
World News and Commentaries - Features - Country Music - Classical Concerts
Special Programmes for DX-ers, young people and jazz fans

For full details see page 121

Please write in for free illustrated programme schedule

	kc	m	kW	h. of tr.
Vilnius (Lithuania)	665	451.1	100	02.00–12.00, 13.00–23.00
Tsjernovtsy (Ukraine)	674	445.1	100	03.00–12.00, 13.45–22.00
Ufa (Bashkir ASSR)	692	433.5	100	01.15–21.03
Moscow II (RSFSR)	692	433.5	20	W 04.00–12.00, 14.30–21.00. Sun 06.00–08.00, 11.00–21.00
Donetsk (Ukraine)	710	422.5	150	02.00–11.00, 13.00–21.03
Tallinn (Estonia)	710	422.5	150	02.55(Sun 03.55)–23.00
Chelyabinsk (RSFSR)	737	407.1	10	00.55–10.20, 12.20–21.03
Moscow II (RSFSR)	737	407.1	20	04.30–12.00, 16.00–20.00
Odessa (Ukraine)	764	392.7	10	02.00–12.00
Kiev II (Ukraine)	782	383.6	100	02.00–12.00, 13.45–17.30
Karaganda (Kazakhstan)	782	383.6	20	00.30–09.00, 11.30–16.00
Leningrad II	800	375	100	03.00–12.00, 13.00–17.30 18.00–21.30
Dushambé (Tadjikistan)	800	375	100	12.00–18.30
Moscow II (RSFSR)	809	371	10	04.30–13.00, 14.30–22.00
Gorkij (RSFSR)	827	363	20	03.00–12.00, 13.00–22.00
Moscow III (RSFSR)	827	363	20	16.00–22.00
Kharkov (Ukraine)	836	358	20	17.00–21.03
Kazan (Tatar ASSR)	845	355	10	03.00–11.00, 13.00–22.00
Yerevan (Armenia)	863	347.6	100	02.00–11.00, 11.50–22.05
Moscow (RSFSR)	872	344	150	02.00–23.00
Stavropol (RSFSR)	881	340	20	03.00–12.00, 13.00–21.03
Ushgorod (Ukraine)	890	337.1	50	02.00–12.00, 13.00–23.00
Makhachkala (Dhagestan)	917	327.2	50	03.00–12.00, 13.00–21.00
Lvov (Ukraine)	935	320.9	300	03.00–12.00, 13.00–23.00
Smolensk (RSFSR)	971	309	150	07.00–12.00, 15.30–22.00
Yuzhno-Sakhal. (RSFSR)	973	308	20	19.25–21.45, 01.00–13.05
Kishinjov (Moldavia)	998	300.6	150	02.00–11.00, 12.43–20.00
Baku (Azerbaidjan)	1016	295	20	as 218kc
Tallinn I (Estonia)	1034	290.1	100	02.55–21.03, 21.05–21.50
Tbilisi (Georgia)	1043	287	100	01.45–06.00, 13.00–21.03
Dnjepropetrovsk(Ukraine)	1070	280.4	20	03.00–12.00, 13.00–21.03
Vilnius II (Lithuania)	1106	271.2	100	02.00–11.00, 13.00–21.03
Moscow I (RSFSR)	1115	269.1	50	02.00–23.00
Leningrad III (RSFSR)	1124	266.9	20	03.00–12.00, 13.00–23.00
Moscow I	1142	262.7	20	03.00–22.00
Kiev (Ukraine)	1169	256.6	150	15.30–01.50
Kursk (RSFSR)	1214	247.1	20	
Tallinn II (Estonia)	1214	247.1	20	02.55(Sun 03.55)–23.00
Moscow III	1232	243.5	150	12.50–21.03
Kiev (Ukraine)	1241	241.7	50	16.00–24.00
Khabarovsk (RSFSR)	1250	240	100	08.00–14.30, 21.00–24.00
Kohtla-Järve (Estonia)	1331	225.4	20	02.55(Sun 03.55)–21.03
Kuldiga (Latvia)	1349	222.4	20	03.00–21.03, 21.05–22.00
Madona (Latvia)	1349	222.4	20	
Valmiera (Latvia)	1349	222.4	20	
Kaunas (Lithuania)	1385	216.6	150	03.00–13.00, 16.00–01.05
Tartu (Estonia)	1403	213.8	20	02.55(Sun 03.55)–21.03
Riga (Latvia)	1421	211.1	10	03.00–22.00
Riga (Latvia)	1484	202.2	5	03.00–22.00
Gomel (Ukraine)	1493	200.9	20	02.00–11.00
Baranovitji (Byelorussia)	1546	194	50	15.00–22.00

FM Stations:

Station	Mc	Station	Mc	Station	Mc
Moscow I	67.22	Leningrad II	66.8	Kohtla-Järve	71.1
Moscow I	69.77	Saratov	66.4	—	68.1
Moscow II	66.4	Tambov	71.7	Tashkent I	69.2
Alma-Ata	72.6	Tallinn I	67.3	— III	71.0
Chelyaninsk	70.1	— II	70.8	Vilnius I	70.1
Ulyanovsk	69.9	Tartu I	69.7	Vilnius II	81.2
Leningrad I	70.4	Tartu II	71.9	Klaipeda	68.6

R. MOSCOW: Shortwave frequencies

kc	kc	kc	kc	kc	kc	kc	kc	kc
4055	5995	6203	7210	7350	9375	9610	9745	11665
4200	6000	6365	7215	7360	9385	9615	9750	11680
4540	6015	7045	7220	7370	9450	9620	9760	11690
4930	6020	7100	7230	7375	9470	9625	9770	11700
4940	6035	7105	7235	7380	9480	9630	9775	11705
5065	6045	7115	7240	7385	9490	9635	9780	11715
5230	6050	7125	7245	7390	9500	9640	9790	11720
5260	6060	7130	7255	7395	9515	9650	9800	11725
5270	6065	7135	7260	7400	9520	9655	9805	11730
5285	6075	7140	7265	7420	9530	9660	9810	11735
5455	6090	7145	7275	7435	9535	9665	9830	11740
5615	6100	7150	7280	7440	9540	9670	9903	11745
5825	6105	7155	7285	7445	9555	9680	9945	11750
5910	6125	7160	7290	7470	9560	9685	10340	11755
5940	6135	7170	7295	7850	9570	9705	10740	11760
5960	6150	7175	7310	7925	9580	9710	11570	11765
5965	6165	7180	7320	8000	9590	9715	11575	11770
5975	6180	7185	7330	9150	9593	9720	11630	11775
5980	6190	7200	7335	9210	9600	9735	11650	11780
5985	6195	7205	7340	9330	9605	9740	11660	11785
11790	11905	12040	15130	15260	15375	16370	17815	20090
11795	11910	12060	15145	15265	15380	17555	17820	21230
11800	11915	12075	15150	15270	15385	17595	17825	21475
11805	11920	12100	15155	15275	15390	17700	17830	21505
11810	11925	12130	15160	15280	15400	17710	17840	21525
11820	11930	12175	15170	15285	15405	17715	17850	21540
11825	11935	12185	15175	15290	15415	17720	17855	21555
11830	11940	12275	15185	15295	15420	17730	17860	21575
11835	11945	14860	15190	15300	15425	17740	17865	21585
11840	11950	15045	15195	15305	15430	17745	17870	21600
11845	11960	15055	15200	15310	15440	17755	17870	21610
11850	11965	15065	15205	15315	15450	17760	17885	21625
11860	11970	15070	15210	15320	15455	17765	17895	21640
11865	11975	15080	15220	15325	15460	17770	17900	21655
11870	11985	15090	15225	15330	15470	17775	17910	21670
11875	11990	15100	15230	15340	15480	17780	17945	22920
11880	12000	15105	15235	15350	15490	17785	18060	
11885	12010	15110	15240	15360	15505	17795	18285	
11890	12020	15115	15245	15365	15780	17800	19725	
11900	12030	15120	15255	15370	16250	17810	19845	

HOME SERVICES

RADIO MOSCOW:

First Prgr: 02.00–12.00, 12.50–22.00 (Sat/Sun 02.00–23.00).

On 151/236kc: as above; **On 173kc:** 16.00–23.00; **On 263kc:** 02.00–11.00, 12.00–22.00 (Sat/Sun 02.00–22.00); **On 872kc:** 02.00–14.00, 21.00–23.00; **On 971kc:** 07.00–12.00; **On 1115kc:** 03.00–23.00; **On 1546kc:** 15.00–21.00.

49mb (5910–6110kc): 02.00–13.00, 14.30–23.00; **41mb** (7310–7420kc): 02.00–22.00; **31mb** (9470–9800kc): 02.00–23.00; **25mb** (11570-12070kc): 03.00–21.00; **On 69.77Mc:** 02.00–22.00; **On 67.22Mc:** 03.00–14.00. N: 02.03, 03.03, 05.00, 10.00 (W), 13.00, 17.00 (Mo-Fri), 19.00, 21.50, 22.00 (W), 22.55 – **Prgr. Preview:** 03.35, 05.15, 09.15, 12.50, 15.25, 16.18 – **Gymnastics:** 02.15, 03.15, 04.10, 08.00 – **Press review:** 04.00 ("Pravda"), 09.00, 15.30 (W) – L.L. (Engl): 12.45 (Wed). **Night Concert:** 21.03–23.00.

Second Prgr: 03.00–22.00; **On 173kc:** 03.00–16.00; **On 200kc:** 06.00–10.00(Sun 12.00); **On 340kc:** 16.00–22.00; **On 385kc:** 12.30–14.00(Sun 13.00), 14.30(Sun 13.30)–22.00; **On 548kc:** 03.00–22.00; **On 692kc:** W 04.00–12.00, 14.30–21.00, Sun 06.00–08.00, 11.00–21.00; **On 737kc:** 04.00–12.00, 16.00–20.00; **On 809kc:** W 04.30–13.00, 14.30–22.00(Sun 04.30–22.00); **On 827kc:** 16.00–22.00. **9810kc:** 04.30–14.00; **In 25mb** (11915–12045kc): 04.50–21.00; **On 66.4Mc:** Mo-Fri 03.00–14.00, Sat 03.00–13.00. Sun 03.00–10.00. **N:** 04.25, 05.25, 20.30 – **Press Review:** 04.45 (W). **Night Concert:** 22.00.

Third Prgr: 14.00–21.00 on 872/1232/5455kc, 15.00–21.00 on 9785kc: 16.00–21.00 on 12000kc: 14.00–21.00 on 67.22Mc.

Fourth Prgr. (For The Eastern part of the country): 19.00–15.00 on 395/5935kc, and in 41mb (7340–7390kc), 31mb (9540–9750kc) and in 25mb (12000–12060kc).

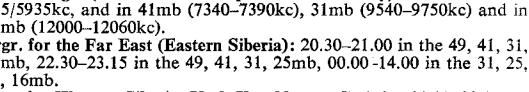
Prgr. for the Far East (Eastern Siberia): 20.30–21.00 in the 49, 41, 31, 25mb, 22.30–23.15 in the 49, 41, 31, 25mb, 00.00–14.00 in the 31, 25, 19, 16mb.

Prgr. for Western Siberia, Ural, Kazahkstan, C. Asia: 00.00–03.00 on 151, 236kc and in the 49, 41, 31, 25mb.

Prgr. in German for Siberia, Kazakhstan, Ural, Altai: on 692 (Ufa), 737kc (Chelyabinsk) and in 49. 41, 31, 25, 19m bands: **D** 01.51–02.00 (N, Press review, prgr.), 13.30–13.50 (W).

ANN: R: "Govorit . (name of station: Moskva, Alma-Ata, Baku, Leningrad, Tashkent etc.)", G: (R. Moscow) "Hier ist Moskau mit seiner Sendung für die sowjetdeutsche Bevölkerung".

INT-SIG: For Home Foreign Service:



PUB: "Radioprogrammy" (weekly) and "Televideniye" (weekly).

REGIONAL STATIONS:

R. ALMA-ATA – L.P: Pres: K. N. Shabalayev.

1st Prgr. in Kazakh, Russian, German, Uighurs: On 182kc: W 00.30–09.00, 11.30–20.00. Sun 00.30–20.00; On 4544/5260/5970/6870/9250/9380/10530kc; 00.30–09.00, 11.30–14.00, 14.00–20.03 on 5260/9525/9380/10530kc (only to 19.00)kc.

N, Wrp. in Kazakh: 00.34, 01.30, 03.30, 05.30, 07.30, 11.30 (W), 12.00 (Sun), 14.00. **N. in Russian:** 00.40, 01.40, 05.35, 07.35, 12.10 (Sun 14.10. **Wrp. in Russian:** 00.43, 01.48, 03.34, 05.38, 07.38, 11.38 (W), 12.18 (Sun), 14.18 – **German:** Mo, Wed, Fri 14.20–14.50 (N. 14.20)

Uighurs: Tues, Thurs, Sat 12.00–12.30 (N. 12.00).

Rel. R. Moscow: 05.40–06.10, 16.00(Sat/Sun 15.00)–21.03. incl.

N: 02.03, 03.03, 04.00, 05.00, 15.00, 16.00, 17.00 (Mo-Fri), 19.00.

2nd Prgr. in Kazakh & Russian (for farmers): 14.00–18.00 on 4544/5970/6870kc (14.00–16.00 & 16.00–18.00 in Kazakh or Russian alternating each day) – N: 14.00 (Kazakh), 14.10 (Russian).

Local Prgr. W 13.00–13.30 on 4544kc and 69.6Mc – **ANN:** Kazakh: "Almaty Seylepturghan" – Russian: "Govorit Alma-Ata" – German:

The Broadcasting House in Moscow

MOSCOW SPEAKING!

Moscow Radio transmits to foreign listeners on short and medium waves in 43 foreign languages and 10 languages spoken in the Soviet Union.

In its broadcasts Moscow Radio tells of life in the Soviet Union, and comments on the most important international events.

Moscow Radio's transmissions comprise news, surveys of the Soviet Russian press, conversations, interviews, and special programmes for women and young people. In addition, programmes concerning science and technique, sport, literature and music.

To the microphones of Moscow Radio come political personalities in USSR, leading Soviet Russian scientists and cultural personalities, plus foreign guests — political and cultural personalities, representatives of business life, tourists and so forth.

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"Hier ist Radio Alma-Ata" – **INT-SIG:** Kazakh folk song (1st prgr), Electronic music (2nd prgr). **Re.** from Kazakhstan only.

R. ASHKHABAD

Home Sce. in Turkmenian, Russian: 01.15–09.00, 12.00–21.03 on 375/4825kc. **Turkmenian:** 01.15–02.00, 02.30–05.00, 08.00–09.00, 12.00–18.00. **Rel. R. Moscow:** 02.00–02.30, 05.00–08.00, 15.30–16.00, 18.00–21.03 (incl. N. at 02.03, 03.03, 04.00, 05.00, 19.00).

R. BAKU: 1st prgr. in Azerbaidjanian, Russian, Armenian: D 01.55–10.05, 12.55–22.00 on 218/4665; at 01.55–04.00, 05.00–10.05 also on 9490/1060kc.

1. prgr: D 01.55–11.00, 12.30–20.50 on 218kc, 01.55–04.00, 05.00–11.00 also on 9490kc. **N. in Azerbaidjan:** 02.00, 09.00, 12.30, 15.00, 19.15 – **Russian:** 07.00–07.30, 09.00–09.30, 13.40–14.05.

N: 06.45, 07.15, 08.45 – **Armenian:** 05.40, 06.15, 08.30–08.45. **N.** (Rel. R. Yerevan): 15.40. **Rel. R. Moscow:** 03.00–04.00, 04.45–05.40, 07.45–08.00, 09.30–11.00, 19.30–22.00 incl. N. 03.03, 04.00, 16.00, 19.00, 21.03.

2nd prgr: On 1016kc 14.30–18.30. **N:** 17.00 – **ANN:** Azerbaidjanian: "Danishir Baku".

R. CHELYABINSK: Home Sce. in Russian, Kazakh, German: On 737kc: 00.55–10.30, 12.30–21.00. Own Prgr's: 02.00–03.00, 03.30–04.00, 14.00–17.00 – **N: Russian:** 02.00, 14.00. **Kazakh:** 03.30–16.30 – **Rel. R. Moscow:** 01.00–01.15, 03.00–03.30, 04.00–10.30, 12.50–14.00, 17.00–21.00 (incl. N. 01.00, 03.03, 04.00, 05.03, 10.00, 13.00, 19.00. **German:** 01.15–02.00, 12.30–12.50 (W). **N:** 01.15, 12.45 (W).

R. FRUNZE: Home Sce. in Kirghize, Russian: On 611/4008kc: 00.00–21.03. Own Prgr's: 00.00–01.00, 02.15–03.45, 05.10–11.30, 12.00–12.35, 13.05–17.00. **Rel. R. Moscow:** 01.00–02.15, 12.35–13.05, 17.00–21.03 (incl. N. at 01.03, 03.03, 05.00, 10.00 (W), 13.00, 17.00 (Mo-Fri), 19.00).

R. DUSHAMBE – L.P: Pres: V. Sharipov – **Home Sce. in Tadjik, Russian:** On 254/4640kc: 00.25–09.00, 11.00–21.03. **Own Prgr's:** 00.25–01.00, 01.30–04.00, 06.30–09.00, 11.00–17.00. **Rel. R. Moscow:** 01.00–01.30, 04.00–06.30, 15.00–15.25, 17.00–21.03 (incl. N. 01.00, 02.03, 03.03, 05.00, 17.00 (Mo-Fri), 19.00).

R. KIEV – ADDR: Ukrainske Radio, R. Centre, ul. Khreshchatik 24, Kiev.

Home Sce. in Ukrainian, Russian.

1st Prgr. on 209/6020kc: 01.55–12.30(Sun23.00), 13.00–22.00.

Own prgr's in Ukrainian: 03.45–04.00*, 05.30–06.00, 06.30–09.00*, 09.15–12.30, 13.00–15.00, 15.20–16.00, 17.05–18.00, 20.00–20.30.

N: 05.30, 07.30, 08.30, 10.00 (dictation on 209kc only), 13.00**, 18.00. **Wrp:** 03.55, 07.50, 13.10**, 18.10. **N. in Russian:** 08.00, 09.45. **Rel. R. Moscow:** 02.00–03.45, 15.00–15.30, 16.00–17.00, 18.20–20.00, 20.30–23.00 (incl. N. 02.03, 03.03, 05.03, 06.00, 10.00 (Sun, 15.00, 16.00, 19.00, 21.03, 22.00, 22.55) – * also on 647, 710, 764, 890kc ** also on 400kc.

R. KISHINEV: Home Sce. in Moldavian, Russian: 03.00–21.03 on 998kc. **Own Prgr's:** 03.15–04.00, 04.30–06.00, 07.30–11.00, 12.44–14.00, 17.00–19.00.

Rel. R. Moscow: 04.00–04.30, 14.00–17.00 (incl. N. at 03.03, 04.00 (Press), 10.00 (W), 15.00, 19.00) – **ANN:** "Vorbeste Chisinau" (Moldavian) – "Govorit Kishinev" (Russian).

R. LENINGRAD: 1st Prgr: On 800kc: 02.57–12.00, 13.00–17.10. **Own Prgr's:** 03.30–03.45, 14.00–15.00. **N:** 03.30, 14.30 – **Wrp:** 02.57, 03.45, 14.45 – Other times rel. R. Moscow. **2nd Prgr:** On 1124kc: Rel. R. Moscow exc. 14.30–15.00 when own prgr – **Special Prgr.** (for seamen in Baltic Sea and No. Atlantic): Fri/Sat 23.00–00.55 on 800/1124kc.

R. MINSK (in Bielorussian): HOME SCE: 1st Prgr: On 281kc: 02.00–12.00, 13.00–23.00. **Own Prgr's:** 03.30–04.00, 04.15–06.00, 06.00–08.00, 08.30–09.00, 10.00–12.00 (W), 13.00–15.00, 15.30–18.00, 18.00–19.00 (W), 19.30–20.00. **N:** 03.35, 05.00, 06.00, 10.00* (W), 13.00, 17.30 – **Rel. R. Moscow:** 02.00–03.30, 04.00–04.15, 08.00–08.30, 09.00–10.00, 20.00–23.00 (incl. N. at 02.03, 03.03, 08.00, 10.00 (Sun), 15.00, 19.00, 21.03, 22.00, 22.55) – **2nd Prgr:** On 400kc: 02.00–12.00, 12.30–22.00 (rel. R. Moscow exc. 09.00–10.00, 20.00–21.00 when own prgr's). *=281kc only.

R. TALLINN: ADDR: Eesti Raadio ja Televisioon, Postkast 402, Tallinn. **Cable:** "Estradio" – **HOME SCE. in Estonian, Russian: 1st Prgr. in Estonian:** 02.55(Sun 03.55)–21.05 on 1034/6085kc, 67.3, 69.7, 71.1Mc; 02.55–08.10, 10.00–15.00 (Sun 03.55–15.00) also on 1214kc; 02.55–14.30, 16.30–21.05 also on 1332, 1403kc. **N:** 03.30 (W), 04.30 (W), 05.30 (exc. Mo), 07.55 (W), 10.00 (W), 15.00, 16.30 (W), 18.30 (Sun), 20.00 – **Rel. R. Moscow:** 08.10–10.00, 19.00–19.30 (N). **Estonian on 1034kc only:** 15.00–15.45 (Sun), 09.30–10.00, 14.30–14.45 (Mo-Fri), 15.00–16.00, 19.00–19.30.

2nd Prgr. in Estonian: on FM 70.8/71.9/68.1Mc: 06.25–10.00 (Sun), 11.55–12.00 (W), 16.00–18.30 (Sat 17.50).

3rd Prgr. in Russian: Rel. R. Moscow I: 03.00–14.30 on 710kc, 16.00–23.00 on 1214kc (incl. N. at 03.03, 05.00, 10.00 (W), 13.00, 17.00 (Mo-Fri), 19.00, 21.03, 22.00 (W), 22.55) – **Own Prgr's in Russian:** on 710, 1332, 1403kc: 05.45–06.00, 06.15–06.45 (Fri), 14.30–15.30 (N. 14.30). **ANN:** "Siin Tallinn" (Estonian) – **PUB:** "Raadioleht" (weekly).

R. RIGA: Home Sce. in Latvian, Russian: 1st Prgr: On 575kc: 02.00–20.20, at 03.00–10.00 also 1349/4121/1484kc – **N: Latvian:** 03.15, 05.00, 08.00, 09.00, 12.00, 14.00, 18.00. **Rel. R. Moscow:** 02.00–03.15, 06.15–09.20, 19.00–19.30 (incl. N. at 02.03, 03.03, 10.00 (Mo-Fri), 15.00, 19.00. **Russian:** 04.30–04.55, 19.30–20.00.

2nd Prgr: On 1349/1421kc 10.00–21.03. **Latvian:** 15.00–15.40, 19.30–20.00. **Russian:** 15.40–16.00. **Rel. R. Moscow:** 10.00–15.00, 16.00–19.30, 20.00–21.03. **Common Prgr.** on 575, 1349, 1421kc: 21.05–21.30 (Concert).

R. TASHKENT: ADDR: ul. Chorezmskaya 49, Tashkent (Uzbek SSR) – **Home Sce. in Uzbek, Tadjik, Russian, Uighurs: 1st Prgr:** 00.00–08.00, 09.30–20.00 on 182/5925kc – **N. in Uzbek:** 00.05, 02.12, 07.30, 10.00, 17.00 – **Tadjik:** 03.50–04.00 – **Uighurs:** 11.20–11.40 (Sat) – **Karakalpak folk music:** 11.50–12.00, 13.15–14.00. **N. from R. Moscow:** 02.03, 04.00 (press), 05.00, 06.00, 15.00, 19.00. **Rel. R. Moscow:** 18.00–20.00. **2nd Prgr.** on 400kc: 02.15–18.00. **Uzbek:** 13.00–16.00 (N. 14.00). Other times rel. R. Moscow.

R. TBILISI: – LP: Pres: P.Yu Shamotava. **Home Sce. in Georgian, Russian, Adshar, Osset:** On 191, 5040kc at 01.45–10.00, 13.00–21.03. **Own Prgr's:** 01.45–03.00, 04.15–06.00, 07.00–10.00, 13.00–15.00, 16.00–20.00. Other times rel. R. Moscow.

R. VILNIUS: Home Sce. in Lithuanian, Russian: 1st Prgr: On 665kc: 03.00–22.00. **Lithuanian:** 04.00–04.25, 05.10–06.00, 14.00–15.00, 15.25–17.00, 18.00–19.00, 19.30–20.55. **N:** 04.00, 05.15, 14.00, 16.00, 18.00, 20.50 – **Russian:** 04.25–05.00 (Mo), 07.45–08.00 (W). **N:** 04.30, 07.45 – Other times rel. R. Moscow.

2nd Prgr. in Lithuanian, Polish, Russian: On 1106kc: 03.00–23.00 – **N. in Lithuanian:** 05.15, 14.00, 16.00, 18.00 – **Polish:** 14.30–15.00. **N:** 14.30 – **Russian:** 15.20–16.00 – Other times rel. R. Moscow.

Special Prgr's in Lithuanian, Russian (bilingual) for seamen in Baltic Sea, Atlantic: Sun 23.00–00.00 on 1106/665kc; Mo 20.00–21.00 on 665kc; Tues: 00.05–01.05 on 1385kc – **ANN:** Lithuanian: "Kalba Vinius". Polish: "Tu Vilnius".

RADIO YEREVAN (Go.)

ADDR: First Aykestan St. 34, Radiohouse, Yerevan 25, Armenian SSR. **Te:** 2-52-72 – **L.P:** Dir. Gen: H. Ayvazian. Dir. Tec: A. Blkyan. **HOME SCE: in Armenian & Russian:** 01.55–10.00, 12.50–21.03 on 362kc, until 13.30 also on 863/7270kc. **Own Prgr's:** 01.55–03.00, 03.15–05.40, 07.05–10.00, 12.50–15.00, 15.25–19.00. **N. from R. Moscow:** 03.00, 04.00 (Press), 05.00, 10.00 (Mo-Fri), 15.00, 19.00 – **ANN:** "Khosum e Yerevan" – **INT-SIG:** Ringing melody from an Armenian folklore song "Garouna" (Spring) by Komitas – V. by QSL-card.

R. ZELINOGRAD: HOME SCE. in Russian, Kazakh, German: On 227kc: W 00.30–09.00, 11.30–20.00. Sun 00.30–20.00 – Own prgr's: 02.00–03.00, 12.00–14.00 (W) (incl. N. in Russian, Kazakh 02.00–13.00) **German:** 12.00–12.30 – Other times rel. R. Alma Ata.

BROADCASTS FROM THE SOVIET COMMITTEE FOR CULTURAL RELATIONS with Fellow Countrymen abroad.

ADDR: Sovietskij komitet po kulturnym svyazyam s sootechestvennikami za rubejom, Bolshoj Kharitonyevskij pereulok no. 10, Moscow K-62, USSR. (For German branch see **E. Germany**).

D.PRGR: To W. Europe: 06.00–07.00, 14.00–15.00, 18.00–19.00, 20.00–21.00 on 1385kc and in 41-31-25-19-16m.b.

To America: 23.30–01.30 in 41-31-25-19m.b. 23.30–00.00 also on 1385kc. **Russian:** 06.00–06.30 (W), 14.00–15.00 (D), 18.30–19.00 (W), 20.00–21.00 (D), 23.30–00.00 (W), 00.30–01.30 (D). **Own prgr's:** Mo, Thurs, Sat at 14.30–15.00, 20.30–21.00, 01.00–01.30, Fri/Sat at 14.00–15.00, 20.00–21.00, 00.30–01.30. **Other times** rel of Russian regional st's (Leningrad, Rostov, Volgograd, Krasnodar, Voronezh, Barnaul, etc). **Prgr's in other languages:** 06.30–07.00 (rep. at 18.30–19.00 & 00.00–00.30) – **ANN:** "Govorit Radiostantsiya 'Rodina'" – **PUB:** Prgr. sched. is printed in the journal "Golos Rodiny" (=Voice of the Homeland").

FOREIGN SERVICES

RADIO MOSCOW TO EUROPE

Albanian	**m.b.**
17.00–17.30	321, 49, 41
18.00–18.30	
19.00–20.00	
21.30–22.00	
Bulgarian	
06.45–07.00	41, 31, 25
17.30–18.00	337, 41
Danish	
16.00–16.30	263, 49, 41[2]
17.00–17.30	49, 41
19.30–20.00	263, 49, 41
Dutch	
17.30–18.00	227, 49, 41
18.30–19.00	263, 49, 41
20.00–20.30	217, 49, 41
English	
07.00–07.30	49, 41
12.00–12.30	25, 19, 16
18.00–18.30	263, 49, 41
19.00–20.00	263, 49, 41
20.30–21.00	263, 49, 41
21.00–22.00	263, 49, 41
22.00–22.30	263, 227, 49, 41
Finnish	
09.30–10.00	(Sun) 375
16.30–17.30	263, 49, 41[2]
18.30–19.30	375, 49
French	
06.45–07.00	49, 41, 31
11.30–12.30	25, 19, 16
18.00–19.00	257, 49, 41
20.00–21.30	257, 49, 41
21.30–22.00	217, 49, 41
German	
06.30–06.45	49, 41, 31
10.30–11.00	25, 19, 16
12.45–13.15	
16.00–17.30	217, 49, 41[2]
18.00–19.00	227, 217, 49
19.30–21.00	227, 49
21.30–22.00	337, 227, 49
German for Austria	
17.00–18.00	256, 49, 41
19.00–19.30	227, 49, 41
21.00–21.30	256, 49, 41
Greek (*=to Cyprus)	
14.00–14.30	31, 25, 19
16.30–17.00	337, 49, 41
17.30–18.00	321, 49, 41

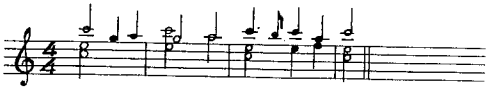
	m.b.
18.30–19.00*	41, 31
20.00–20.30	337, 49, 41
21.00–21.30	321, 49, 41
Hungarian	
18.00–19.00	337, 49, 41
Italian	
13.30–14.00	31, 25, 19
17.30–18.30	41, 31
19.00–20.00	257, 49, 41
20.30–21.30	337, 49, 41
Macedonian	
19.00–19.30	337, 49, 41
Norwegian	
12.30–13.00	(Mo–Fri) 457
18.00–18.30	375, 49, 41[2]
19.30–20.15	375, 49, 41[2]
Polish	
17.30–18.00	217, 49
19.00–19.30	217, 49
21.00–21.30	217, 194, 49
Portuguese	
18.30–19.00	49, 41, 31
19.30–21.00	41, 31
Rumanian	
07.00–07.30	41, 31, 25
17.00–17.30	337, 49, 41
Serbo-Croat	
13.15–13.30	31, 25, 19
15.30–16.00	257, 49, 41
16.15–17.00	257, 49, 41
18.30–19.00	321, 49, 41
19.30–20.00	337, 49, 41
20.30–21.00	321, 49
Slovenian	
16.00–16.15	257, 49, 41
20.00–20.30	321, 49, 41
Spanish	
12.30–12.45	25, 19, 16
18.00–18.30	41, 31
20.00–21.00	41, 31
21.30–22.30	257, 49, 41, 31
Swedish	
17.30–18.00	263, 49, 41[2]
20.15–21.00	375, 49, 41[2]
21.00–21.30	375, 49, 41[2]
TO NEAR & MIDDLE EAST	
Arabic (* = to NW. Africa)	
12.30–13.30	31, 25, 19
16.00–16.30	309, 49, 41, 31
17.30–18.30	347, 309, 49, 41, 31
19.00–20.30*	309, 49, 41, 31
Persian	
09.30–10.00	25, 19
11.00–11.30	25, 19
12.30–13.00	25, 19
15.00–15.30	347, 309, 49, 41[1], 31[2]
16.30–17.30	347, 49, 41[1], 31[2]
18.30–19.00	347, 49, 41, 31
Pushtu (to Afghanistan)	
13.30–14.00 15.00–15.30 16.30–17.00	375, 41, 31
Turkish (*=to Cyprus)	
10.30–11.00	25, 19
13.30–14.00	31, 25, 19
14.30–15.00*	31, 25, 19
15.30–16.00	309, 49, 41, 31
16.30–17.30	309, 41, 31
18.30–19.00	309, 41, 31
TO AFRICA	
Bambara	
19.15–19.30	31
English	
12.00–12.30	25, 19, 16, 13
15.00–15.30	31, 25, 19
17.00–17.30	41, 31
18.00–18.30	31, 25
19.00–19.30	31, 25
20.00–20.30	41, 31, 25
21.00–21.30	49, 41, 31, 25
French	
14.00–14.30	31, 25, 19
16.00–16.30	31, 25, 19
19.00–19.15	31

	m.b.
19.30–20.00	41, 31
20.30–21.00	41, 31
21.30–22.00	49, 41, 31
Amharic	
16.30–17.00	31, 25, 19
18.00–18.30	41, 31
Hausa	
17.30–18.00	49, 41, 31, 25, 19
18.30–19.00	41, 31, 25
20.00–20.30	49, 41, 31
Italian	
15.00–15.30	31, 19
Malgach	
17.00–17.15	31, 25, 19
Portuguese	
17.00–17.30	31, 25, 19
18.00–18.30	31, 19
19.00–19.30	31, 25
20.30–21.00	41, 31, 25
Somali	
14.30–15.00	41, 31, 25, 19
16.00–16.30	41, 31, 19
Swahili	
10.00–10.30	25, 19, 16, 13
11.00–11.30	19, 16, 13
15.30–16.00	31, 25, 19
16.30–17.00	41, 31, 25, 19
17.30–18.00	41, 31, 25
18.30–19.00	49, 31, 25
19.30–20.00	31, 25
Russian Lessons*	
11.30–12.00	25, 19, 16, 13
15.30–16.00	25, 19
18.00–18.30	49, 31
* Mo, Wed, Fri in French, other days in English	
TO SOUTH EAST ASIA	
English	
08.30–09.00	25, 16, 13
11.00–11.30	25, 19, 16, 13
11.30–12.00 12.30–13.00	240, 49, 41, 31[2]
13.00–13.30	31, 25, 19, 16
13.30–14.00	240, 49, 41, 31[2]
15.00–15.45	31, 25
21.30–22.00	548, 240, 49, 41, 31
French	
10.00–10.30	25, 19, 16, 13
13.00–13.30	25, 19, 16
Bengali	
11.00–11.30	25, 19, 16
12.00–12.30	25, 19, 16, 13
13.30–14.00	25, 19
14.30–15.00	41, 31, 25
15.30–16.00	41, 31
Burmese	
09.45–10.00	25, 19, 16, 13
12.15–13.00	25, 19
Indonesian	
09.00–09.45	16, 13
10.30–11.00	19, 16
11.30–12.15	25, 19, 16
13.30–14.30	25, 19, 31[1]
15.00–15.30	25, 19, 31[1]
Hindi	
11.30–12.00	25, 19, 16, 31[1]
12.30–13.00	25, 19, 16
14.30–15.00	375, 31, 25, 19
15.45–16.30	31, 25
Tamil	
13.30–14.00	31, 25, 19
15.30–16.00	31, 25
Urdu	
12.00–12.30	375, 25, 19, 31[1]
13.00–13.30	41, 31, 25, 19
14.00–14.30	375, 31, 25, 19
15.00–15.30	31, 25
16.00–16.30	41, 31, 25
Vietnamese	
22.30–23.00	240, 49, 31, 25
10.30–11.00	49, 41
11.00–11.30	25, 19, 16
12.00–12.30	49, 41
13.00–13.30	25, 19
14.30–15.00	25, 19, 31[1]

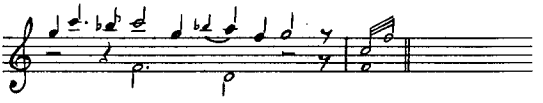
	m.b.
TO FAR EAST	
Chinese	
08.30–09.00 09.30–10.00	548, 477, 49, 41, 31, 25, 19
10.30–11.00	548, 477, 49, 31
11.00–11.30	548, 477, 49, 41, 31, 25
12.00–12.30	548, 477, 49, 31
12.30–13.00	548, 477, 41, 31, 25
13.00–13.30 14.00–14.30	548, 477, 49, 41
14.30–15.00 15.00–15.30	548, 477, 49, 41, 31, 25
23.00–24.00	240, 49, 31, 25
Korean	
09.00–09.30	548, 477, 49[1], 41, 31, 25, 19[2]
09.30–10.00	240, 49, 41, 31
10.00–10.30	548, 49[1], 41, 31[2]
11.30–12.00	548, 477, 49, 41, 31, 25
13.30–14.00	548, 477, 49, 41, 31, 25[2]
21.00–21.30	548, 477, 240, 49, 41, 31
22.00–22.30	548, 477, 240, 49, 31
Mongolian	
09.30–10.00	31, 25, 19
13.15–14.00	41, 31
Japanese	
08.00–08.30	477, 240, 41, 31, 25
08.30–09.00 09.00–09.30	240, 41, 31, 25
10.00–10.30	477, 240, 49, 41, 31, 25
10.30–11.00	477, 41, 31, 25, 19[2]
11.00–11.30	240, 49, 41, 31
12.00–12.30	41, 31, 25
13.00–13.30	240, 49, 41, 31
14.00–14.30	240, 49, 41, 31, 25[2]
TO USA in English	
First Prgr.	
22.00–23.00	49, 41, 31
23.00–00.30	41, 31
01.00–03.00	49, 41, 31
03.30–05.00	49, 41, 31
05.00–06.00	49, 41
Second Prgr.	
17.30–20.30[3]	49, 41, 31
03.00–07.30	41, 31, 19
TO WEST INDIES	
French (to Martinique)	
00.00–00.30	41, 31
Thurs, Sun only.	
TO LATIN AMERICA	
Spanish to Cuba	
14.00–15.00	19, 16
23.00–00.30	49, 41, 31
00.30–01.00	49, 41, 31, 19, 16
01.00–01.30 03.00–04.00	49, 41, 31
Spanish to So. America	
23.00–24.00	41, 31
01.00–02.00	41, 31, 19, 16
02.30–03.00	49, 41, 31, 19
03.00–04.00	41, 31
Spanish to C. America	
04.00–05.00	49, 41

[1] to 1/3 63 [2] from 1/3 63
[3] Sun only.

R. BAKU
Azerbaijan: 04.00–04.30 in 60, 31m.b, 13.30–14.00 in 60, 49, 31m.b – **Arabic:** 15.30–16.00, 16.30–17.00 in 49, 31m.b – **Persian:** 04.30–04.45 in 60, 31m.b, 13.00–13.30 in 60, 49, 31m.b, 14.00–15.00 in 49, 31m.b – **Turkish:** 15.00–15.30 in 49, 31m.b, 16.00–16.30 & 17.30–18.15 in 31 m.b – **ANN:** Azerbaijan: "Danishir Baku" – Arabic: "Huna Baku" – Persian: "Inja Baku" – Turkish: "Burasi Baku" – **INT-SIG:**



R. DUSHAMBE: Persian: 15.30–16.00 & 18.00–18.30 on 375m – **Tadjik:** 12.30–13.30 on 375 and 41m, 16.00–16.30 & 17.00–17.30 on 375m. (41 m.b. is reported as 7330kc).
R. EREVAN: Armenian: 08.30–09.30(Sun) in 41, 31, 25, 19m.b, 15.30–16.25 & 19.30–21.05 on 348, 41m.b, 19.30–20.30(Sun) in 49, 41, 31m.b – **Arabic:** 14.20–15.00 & 19.00–19.30 on 348, 41m.b.
R. KIEV: English: Mo, Thurs, Fri: 22.30–22.50 on 1241kc for Europe, Tues, Fri, Sun: 02.00–02.20 on 7210, 9610, 9670, 9710kc, 04.00–04.20 on 7190, 7210, 9710kc for No.America – **Ukrainian:** 16.00–17.00 in 6020, 9640, 11930kc for Europe, 19.00–20.00 on 6020kc, 22.00–24.00 on 1241kc for Europe, 01.30–05.30 in 41m.b. for No.America – **ANN:** "Hovoryt Kiev". E: "This is R. Kiev".
R. MINSK: Bielorussian: 21.30–22.30 in 49, 41m.b. (Freq's reported 5940, 7130kc) – **ANN:** "Havoryts Minsk".
R. RIGA: Latvian: 08.30-09.15(Sun) on 521, 222m, 21.15-22.00(Tues) on 521, 222, 211m – **Swedish:** 08.00–08.30(Sun) on 521m, 20.20-20.50 (Tues, Thurs, Sat) on 521m, 21.30–22.00(Wed, Fri, Sun) on 521, 222, 211m.
R. TALLINN – ADDR: Eesti Radio, P.O. Box 402 Tallinn, Estonian SSR. **Cable:** "Estradio" – **Estonian:** 21.05–21.40(Thurs, Sat) on 290, 49m.b – **Finnish:** 08.00–09.15(Sun) on 290, 49m.b, 09.15–09.30 & 16.00–16.30(W) on 290m – **Swedish:** 21.05–21.40(Mo, Wed, Fri) on 290, 49m.b – **ANN:** Finnish: "Täällä Tallinna". Swedish: "Här är Tallinn" – **V.** by QSL-card and letter.
R. VILNIUS – ADDR: Lieturas TSR Radijas, ul. Kanarskio 49, Vilnius – **Lithuanian:** 22.30–23.30 in 49, 41m.b – **V.** by QSL-card.
R. TASHKENT in 31, 25m.b. (9600, 11925kc): **English:** 12.00–12.30, 14.00–14.30 – **Hindi:** 13.00–13.30, 15.00–15.30 – **Persian:** 16.00–16.30, 17.30–18.00(also on 397m) – **Urdu:** 12.30–13.00, 13.30–14.00 – **Uzbekh:** 16.30–17.00 – **INT-SIG:**



V. by QSL-card.

VATICAN STATE

L.T: GMT+1 h.

VATICAN RADIO (Rel.)

ADDR: Vatican Radio, Vatican City. **Cable:** Vatican Radio. **Te:** 698. **L.P:** Dir. Gen: Rev. Prof. Antonio Stefanizzi S. J. Dir. Prgr: Rev. F. Ramirez S. J. Dir. Tec: Dott. Ing. Tullio Gorio.

STATIONS: Medium Waves:
HV2 782kc 383.6m 2kW – HV100 1529kc 196.2m 100kW
FM: 93.3, 96.3Mc 0.5kW.
Short Waves: 25/50/100kW.

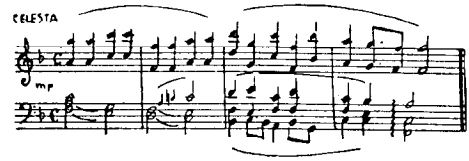
kc	m	kc	m	kc	m	kc	m
6145	48.82	9645	31.10	11925	25.16	17860	16.80
6190	48.47	9675	31.01	15120	19.84	17780	16.87
7235	41.46	9740	30.80	15190	19.74	21490	13.96
7250	41.38	11740	25.55	17720	16.93	21515	13.94
9540	31.44	11880	25.25	17840	16.82	25780	11.64

Brown Boveri, Switzerland: 2×10kW sw-tr's, one 135kW mw-tr. **Telefunken A.G.** Germany: 2×100kW sw-tr's, studio equip (recorders). The wavelengths are subject to change with seasonal variations, or to avoid interference.

PROGRAM SCHEDULE: (October 63–April 64).

		kc
TO EUROPE		
Albanian:	20.30 Tues, Thurs, Sat	6190, 7250, 1529
Bulgarian:	17.30 Tues, Thurs	6190, 7250, 9645, 1529
	11.10 Sun	7250, 9645, 11740, 1529
Croat:	17.45 Sun, Mo, Tues, Wed, Fri	6190, 7250, 1529
Czech:	12.30 D	7250, 9645, 11740, 1529
	19.30 D	6190, 7250, 9645, 1529
English:	15.00 D	7250, 9645, 11740, 1529
	18.15 D	6190, 7250, 9645, 1529
Estonian:	15.45 Sun	7250, 9645, 11740
French:	11.45 D	7250, 9645, 11740, 1529
	14.30 D	7250, 9645, 11740, 1529
	19.15 D	6190, 7250, 9645, 1529
German:	12.45 D	7250, 9645, 11740, 1529
	14.45 D	7250, 9645, 11740, 1529
	19.45 D	6190, 7250, 9645, 1529
Hungarian:	13.00 D	7250, 9645, 11740, 1529
	21.00 D	6190, 7250, 9645, 1529
Italian:	13.30 D	6190, 7250, 9645, 11740, 1529
	18.30 D	6190, 7250, 9645, 11740, 1529
	16.00 Fri	6190, 7250, 9645, 1529
	21.30 D	1529
Latin:	11.30, 16.30 Tues, Thurs, Sat	7250, 9645, 11740, 15120, 1529
	21.15 Tues, Thurs, Sat	6190, 7250, 9645, 1529
	20.00 D (H. Rosary)	6190, 7250, 9645, 11740, 1529
Latvian:	17.30 Mo, Fri	6190, 7250, 9645, 1529
Lithuanian:	07.30 Sun	7250, 9645, 11740
	17.15 D	6190, 7250, 9645, 1529
Polish:	12.15 D	7250, 9645, 11740, 1529
	15.15 D	7250, 9645, 11740, 1529
	19.00 D	6190, 7250, 9645, 1529
Portuguese:	15.30 D	7250, 9645, 11740, 1529
	20.30 D	7235, 9740
Rumanian:	17.30 Sun, Wed, Sat	6190, 7250, 9645, 1529
Russian:	14.00 D	9645, 11740, 15120, 1529
	18.00 D	6190, 7250, 9645, 1529
Slovak:	12.00 D	7250, 9645, 11740, 1529
	20.15 D	6190, 7250, 9645, 1529
Slovene:	17.45 Thurs, Sat	6190, 7250, 1529
	20.30 Mo, Fri	6190, 7250, 1529
	10.50 Sun	7250, 9645, 1529
Spanish:	14.15 D	7250, 9645, 11740, 1529
	20.45 D	6190, 7250, 9645, 1529
Swedish, Danish, Norwegian:	20.30 Wed, Sun	7250, 9645, 1529
Ukrainian:	17.00 Sun, Tues, Thurs, Fri	6190, 7250, 9645, 1529
White Ruth:	17.00 Mo, Wed, Sat	6190, 7250, 9645, 1529
Musical Concert:	19.30 Sun	6190, 7250, 9645, 11740, 1529
	12.30 Mo	7250, 9645, 11740, 1529
	16.00 Thurs	7250, 9645, 11740, 1529
Latin Liturgy:	08.30 Sun	7250, 9645, 11740, 15120
Oriental Liturgy:	09.30 Sun	9645, 11740, 15120, 1529
TO AFRICA		
Arabic:	16.45 D	9645, 11740, 15120, 1529
English:	10.00 W	17840, 21490
	10.20 W	17840, 21490
Ethiopian:	16.30 Mo, Wed, Fri	11740, 15120, 1529
French:	10.50 W	17840, 21490
	11.10 W	17840, 21490
Portuguese:	10.35 W	17840, 21490
Swahili:	16.15 D	11880, 15120
TO AMERICA		
Portuguese:	23.00 D	9645, 11740
Spanish:	23.30 D	9645, 11740
	00.00 D	9645, 11740
	00.30 D	9645, 11740
English:	00.50 D (for USA)	6145, 7250, 9645
French:	01.10 D	6145, 7250, 9645
TO ASIA		
Arabic:	16.45 D	9645, 11740, 15120, 1529
Chinese:	22.30 Tues, Thurs, Sat	7250, 9645, 11740
English:	16.00 Mo, Wed, Sat (for India)	9645, 11740, 15120
	22.30 Mo, Wed, Sat (for Philippines)	7250, 9645, 11740
Japanese:	21.45 Mo, Wed, Fri	7250, 9645, 11740
TO AUSTRALIA/NEW ZEALAND		
English:	11.30 D	15120, 17720
	22.00 D	9645, 11740

OPENING SIGN: The bells of St. Peter's.
ANN: "Laudetur Jesus Christus. Praised be Jesus Christ. This is Vatican Radio".
INT-SIG: Carillon Melody "Christus Vincit" executed on the celeste with orchestral accompaniment.



V. by QSL-card or letter. Records accepted. **PUB:** Prgr. sched. free on request.

YUGOSLAVIA

L.T: GMT+ 1 h – **Pr.L:** Serbo-Croat, Slovenian, Macedonian.

JUGOSLOVENSKA RADIOTELEVIZIJA (Go.)

FI: by license payments – **AD:** Beograd 60 min, Zagreb 85 min, Ljubljana 65 min, Sarajevo 65 min, Skopje 135 min, Titograd 30 min, Novi Sad 70 min, Pristina 30 min per day.
ADDR: 70 Borisa Kidrica, Belgrade. **Cable:** Jugoslovenska radiotelevizija Beograd. **Te:** 43-677. **Telex:** 01-259 jurate beograd.
L.P: Radiotelevision Yougoslave: Pres. Adm. Committee: Z. Vukovic Vicepres: I. Bojanic. Secr. Gen: Dr. Ivko Pustisek. Head for Rel: Mrs. O. Vojvodic. Pres. Prgr. Com: M. Markovic. Mrs. N. Erceg. Pres. Jur. Com: L. Dimitrovski. Pres. Tech. Com: Eng. S. Rojec. Pres. Prgr. Com. for TV: D. Fortic. **Radiotelevision Beograd:** Dir. Gen: Z. Vukovic. Dir. Prgr: V. Pesic. **Radiotelevision Zagreb:** Dir. Gen: I. Bojanic. Dir. Prgr: D. Strbac. **Radiotelevision Ljubljana:** Dir. Gen: B. Mikos. Dir. Prgr: M. Mercum. **R. Skopje:** Dir: D. Tozija. **R. Sarajevo:** Dir: Mrs. V. Savic. **R. Titograd:** Dir. M. Brailo. **R. Novi Sad:** Dir: A. Sabatka. **R. Pristina:** Dir: R. Dauti.

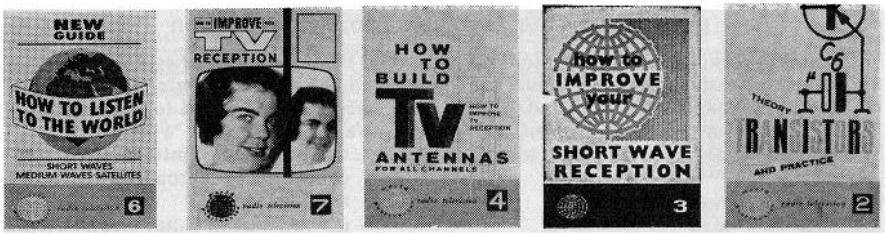
MEDIUM WAVES:

Main stations	kc	m	kW		kc	m	kW
Sarajevo	611	490.9	100	Ljubljana I	917	327.1	135
Beograd	683	439.2	150	Zagreb	1133	264.7	135
Skopje	809	370.8	135	Novi Sad	1268	236.6	100
Titograd	881	340.5	20	Pristina	1412	212.4	20

Local Stations:

	kc	m	kW		kc	lm	kW
Nis	926	324.0	10	Knin	1484	202.2	0.03
Rijeka I	1133	264.7	15	Buje	1484	202.2	0.05
Hvar	1133	264.7	50	Djakovo	1484	202.2	0.05
Koper	1169	256.6	6	Petrinja	1484	202.2	0.05
Maribor	1412	212.4	6	Varazdin	1484	202.2	0.05
Osijek	1412	212.4	2	Slovengradec	1484	202.2	0.05
Gospic	1412	212.4	20	Ptuj	1484	202.2	0.05
Split	1484	202.2	2	Skopje	1484	202.2	0.4
Bitola	1484	202.2	2	Titov Veles	1484	202.2	0.1
Celje	1484	202.2	2	Gostivar	1484	202.2	0.05
Dubrovnik	1484	202.2	2	Djevdjelija	1484	202.2	0.05
Beograd II	1484	202.2	2	Kavadar	1484	202.2	0.05
Ljubljana II	1484	202.2	2	Kocani	1484	202.2	0.05
Sljeme	1484	202.2	2	Prilep	1484	202.2	0.03
Rijeka II	1484	202.2	2	Strumica	1484	202.2	0.05
Novi Sad II	1484	202.2	2	Stip	1484	202.2	0.2
Murska Sobota	1484	202.2	1	Kicevo	1484	202.2	0.15

STANDARD HANDBOOKS ON RADIO AND TV



1 2 3 4 5

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Tuzla	1484	202.2	2	Resen	1484	202.2	0.15
Brcko	1484	202.2	0.1	Ohrid II	1484	202.2	0.02
Ohrid I	1484	202.2	2	Rijeka II	1484	202.2	2
Crnomelj	1484	202.2	0.05	Vinkovci	1594	188	0.03
Radlje	1484	202.2	0.05	Sombor	1594	188	1
Vukovar	1484	202.2	0.01	Karlovac	1594	188	0.05
Svetozarevo	1484	202.2	1.5	Krapina	1594	188	0.05
Pula	1484	202.2	2				

SHORT WAVES: Beograd 10/10/50/100kW

kc	m	kc	m	kc	m	kc	m
6100	49.18	7200	41.67	9505	31.56	11735	25.56
6150	48.78	7240	41.44	9620	31.18	15240	19.69

FM	Mc	kW		Mc	kW		Mc	kW
Beograd	88.1	1	Srdj	97.3	1.25	LjubljanaI	96.5	1.5
Beograd-Avala	97.3	1	Pula	88.1	7	LjubljanaII	93.5	2.5
Crveni Cot	94.5	50	Zagreb	88.1	0.09	Kum I	94.1	4.5
Jastrebac	96.9	50	Zagreb	99.3	0.06	Kum II	99.9	2.5
Novi SadII	87.7	5	Sol Glava	97.7	1	Pohorje I	88.5	0.375
Novi SadI	90.5	5	Mali Vlaj	93.3	0.1	Pohorje II	96.9	2.5
Pristina	90.5	1	Koper-B. Kriz	97.7	0.375	Stol I	91.9	1
Goles	95.7	25	Koper-Mirna			Gora I	97.7	2.5
Crni Vrh	89.7	1.25	Mesto	89.3	1	Sarajevo I	95.7	1
Sljeme	92.1	3	Nanos I	92.9	1.5	SarajevoII	98.1	1
Psunj	97.3	1.25	Nanos II	95.3	2.5	Velez	97.3	1
Strip.Gric	89.6	2.5	Plesivec II	90.1	1.25	Skopje	94.5	1
Velebit	93.3	10	Krvavec II	98.9	2.5	Titograd	96.1	0.35

Telefunken A.G. Germany delivered studio equip (recorders) – **AKG**, Austria delivered studio equipment (recorders, microphones).
Brown Boveri Switzerland delivered 100kW sw-tr. (Stublisa), 100kW mw-tr. Skopje, 20kW Zagreb.
Sondor, Switzerland delivered studio equipments to Ljubljana, Beograd.

HOME SERVICE

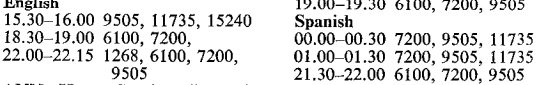
R. Beograd: W 03.00–23.05 (Sat through Mo 03.00–23.05). **N, Comm:** 03.00, 04.00, 05.00, 07.00, 09.00, 11.00, 12.00, 14.00, 16.00, 17.00, 18.30, 21.00, 23.00.
R. Zagreb: W 04.00–23.05 (Sat 24.00). Sun 05.00–23.05. **N, Comm:** 07.00, 08.30, 10.00, 12.00, 14.00, 16.00, 21.00, 22.00, 23.00.
R. Ljubljana: W 04.00–23.00. Sun 05.00–23.00. **N, Comm:** 04.05, 05.00, 06.05, 07.00, 09.00, 11.00, 12.00, 14.00, 16.00, 17.00, 21.00, 22.00, 23.00.
R. Skopje: D 03.55–23.00. **N, Comm:** 04.15, 05.15, 06.30, 09.00, 10.00, 11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 18.30, 21.00, 22.00, 23.00.
R. Sarajevo: W 04.25–23.00(Sat 24.00). Sun 04.55–23.05. **N:** 04.30, 05.30, 09.00, 11.00, 12.00, 14.00, 15.00, 18.30, 21.00, 22.00, 22.55.
R. Titograd: W 04.30–06.30, 12.00–21.00. Sun 05.00–21.00. **N, Comm:** 04.00, 05.00, 12.00, 13.00, 15.00, 16.00, 18.00, 20.30.
R. Novi Sad: D 04.00–23.00. **N, Comm:** 04.15, 04.45, 05.00, 06.00, 11.00, 12.00, 16.00, 17.00, 18.00, 20.30, 21.30, 23.00.
R. Pristina: W 04.30–07.00, 11.00–23.00. Sun 05.00–23.00. **N, Comm:** 05.30, 07.00, 11.00, 15.00, 17.00, 18.00, 18.30, 21.00.

FOREIGN SERVICE

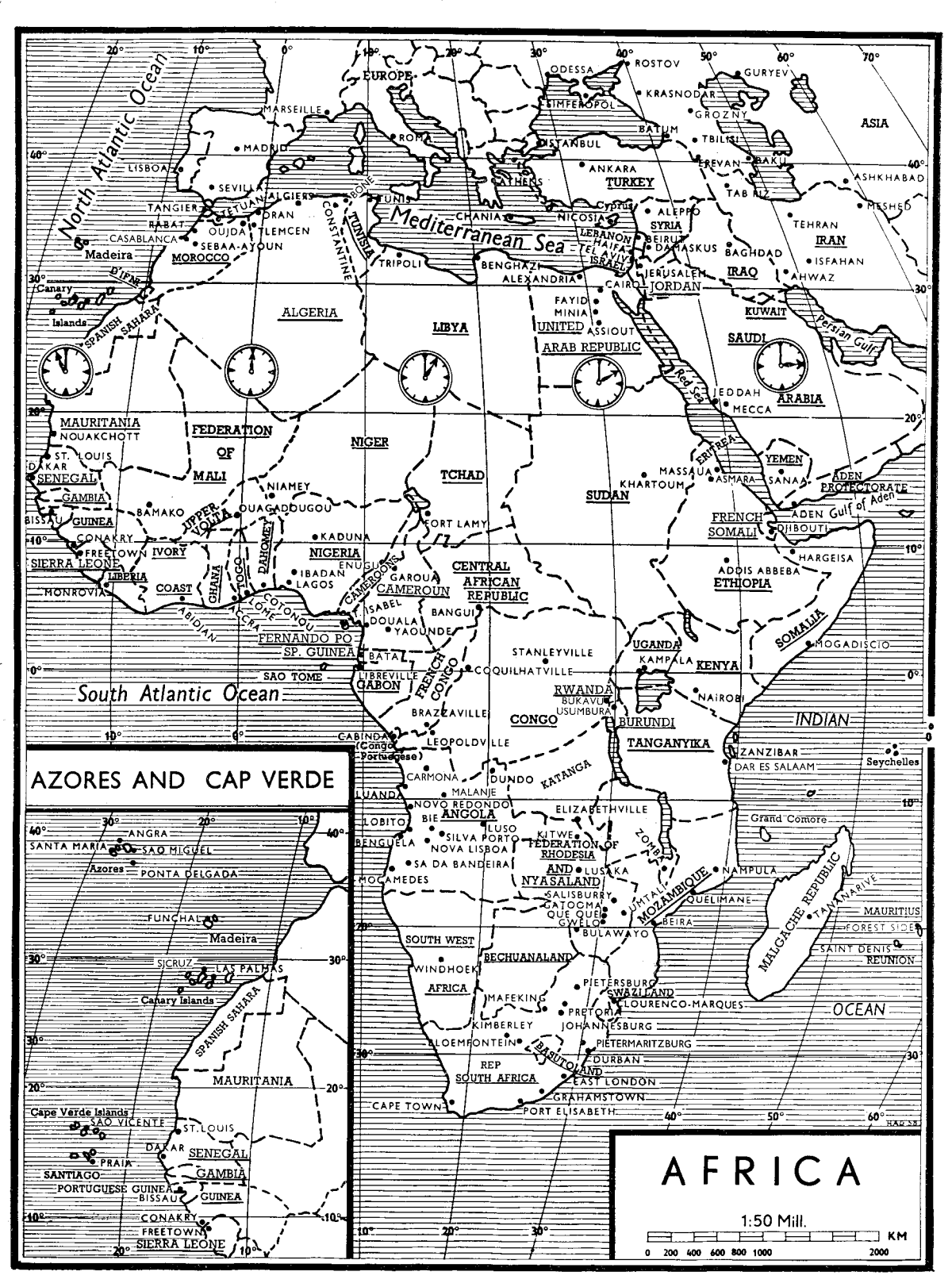
Albanian	kc
14.00–14.30	6100, 7200, 9505
18.30–19.00	881, 9505
Arabic	
15.00–15.15	6100, 9505, 11735
17.30–18.00	6100, 7200
19.45–20.00	6100, 7200, 9505
Bulgarian	
14.00–14.30	917
18.00–18.30	6100, 7200, 9505
09.00–10.00 (Sun)	917
Czech	
16.45–17.00	6100, 7200, 9505
20.00–20.30	6100, 7200, 9505
21.30–21.45	1268
English	
15.30–16.00	9505, 11735, 15240
18.30–19.00	6100, 7200,
22.00–22.15	1268, 6100, 7200, 9505

French	kc
16.30–16.45	6100, 7200, 9505
19.30–19.45	6100, 7200, 9505
22.15–22.30	1268, 6100, 7200, 9505
German	
17.30–18.00	9505
20.45–21.00	6100, 7200, 9505
Polish	
16.00–16.30	6100, 7200, 9505
20.30–20.45	6100, 7200, 9505
Russian	
04.30–04.15	1268, 6100, 7200, 9505
14.30–14.45	6100, 7200, 9505
17.00–17.20	6100, 7200, 9505
19.00–19.30	6100, 7200, 9505
Spanish	
00.00–00.30	7200, 9505, 11735
01.00–01.30	7200, 9505, 11735
21.30–22.00	6100, 7200, 9505

ANN: Home Service: "Here is Radiotelevision Beograd,...Zagreb,...Ljubljana etc." – "Ovde Radiotelevizija Beograd,...Zagreb,...Ljubljana etc." – Foreign Service: "This is Yugoslavia, R. Belgrade calling" – "Ici la Yougoslavie, Belgrade vous parle".
INT-SIG: Home and Foreign Service: The beginning of the "Internationale" (Radio Belgrade).



V. by QSL-card. Re. to: Chief Editor of External Broadcasting. 2 Hilendarska, Beograd. Records accepted.


AZORES AND CAP VERDE
AFRICA
1:50 Mill.
KM
0 200 400 600 800 1000 2000
North Atlantic Ocean
South Atlantic Ocean
Mediterranean Sea
Red Sea
Persian Gulf
Gulf of Aden
INDIAN OCEAN
EUROPE
ASIA
TURKEY
SYRIA
LEBANON
ISRAEL
JORDAN
IRAQ
IRAN
KUWAIT
SAUDI ARABIA
ALGERIA
LIBYA
UNITED ARAB REPUBLIC
SUDAN
ERITREA
YEMEN
ADEN PROTECTORATE
FRENCH SOMALI
ETHIOPIA
SOMALIA
KENYA
UGANDA
TANGANYIKA
BURUNDI
RWANDA
CONGO
CENTRAL AFRICAN REPUBLIC
CAMEROUN
NIGERIA
CHAD
NIGER
FEDERATION OF MALI
MAURITANIA
SENEGAL
GAMBIA
GUINEA
SIERRA LEONE
LIBERIA
IVORY COAST
UPPER VOLTA
DAHOMEY
TOGO
GHANA
FERNANDO PO
SP. GUINEA
SAO TOME
GABON
FRENCH CONGO
ANGOLA
KATANGA
FEDERATION OF RHODESIA AND NYASALAND
MOZAMBIQUE
MALGACHE REPUBLIC
MAURITIUS
REUNION
SOUTH WEST AFRICA
BECHUANALAND
SWAZILAND
REP SOUTH AFRICA
BASUTOLAND
SPANISH SAHARA
MOROCCO
TUNISIA
D'IFNI
Madeira
Canary Islands
Cape Verde Islands
SANTIAGO
PORTUGUESE GUINEA
SAO MIGUEL
Azores
PONTA DELGADA
FUNCHAL
SICRUZ
LAS PALMAS
Canary Islands
SAO VICENTE
ST. LOUIS
DAKAR
PRAIA
BISSAU
CONAKRY
FREETOWN
SIERRA LEONE
ANGRA
SANTA MARIA
ROMA
MARSEILLE
MADRID
LISBOA
SEVILLA
TANGIER
RABAT
CASABLANCA
ALGIERS
ORAN
OUJDA
TLEMCEN
SEBAA-AYOUN
TUNIS
CONSTANTINE
BONE
TRIPOLI
BENGHAZI
ALEXANDRIA
CHANIA
ATHENS
ISTANBUL
ODESSA
SIMFEROPOL
ROSTOV
KRASNODAR
GROZNY
BATUM
TBILISI
EREVAN
BAKU
TAB RIZ
ASHKHABAD
MESHED
TEHRAN
ISFAHAN
AHWAZ
BAGHDAD
ANKARA
NICOSIA
Cyprus
ALEPPO
BEIRUT
DAMASKUS
HAIFA
TEL AVIV
JERUSALEM
CAIRO
FAYID
MINIA
ASSIOUT
JEDDAH
MECCA
MASSAUA
ASMARA
SANAA
KHARTOUM
ADEN
DJIBOUTI
HARGEISA
ADDIS ABBEBA
MOGADISCIO
NAIROBI
KAMPALA
STANLEYVILLE
COQUILHATVILLE
BUKAVU
USUMBURA
BRAZZAVILLE
LEOPOLDVILLE
CABINDA (Congo Portuguese)
CARMONA
DUNDO
MALANJE
LUANDA
NOVO REDONDO
LOBITO
BIE
LUSO
SILVA PORTO
NOVA LISBOA
BENGUELA
SA DA BANDEIRA
MOCAMEDES
KITWE
LUSAKA
ELIZABETHVILLE
ZOMBA
NAMPULA
QUELIMANE
BEIRA
UMTALI
SALISBURY
GATOOMA
QUE QUE
GWELO
BULAWAYO
WINDHOEK
MAFEKING
PIETERSBURG
LOURENCO-MARQUES
PRETORIA
JOHANNESBURG
KIMBERLEY
BLOEMFONTEIN
PIETERMARITZBURG
DURBAN
EAST LONDON
GRAHAMSTOWN
PORT ELISABETH
CAPE TOWN
ZANZIBAR
DAR ES SALAAM
Seychelles
Grand Comore
TANANARIVE
FOREST SIDE
SAINT DENIS
BAMAKO
NIAMEY
OUAGADOUGOU
KADUNA
IBADAN
LAGOS
ENUGU
GAROUA
ISABEL
DOUALA
YAOUNDE
BANGUI
FORT LAMY
ABIDIAN
ACCRA
LOME
COTONOU
CAMEROONS
Madeira
Canary Islands
Cape Verde Islands
Azores
Seychelles
Mediterranean Sea
Persian Gulf
Gulf of Aden
Red Sea

ALGERIA

L.T: GMT – **Pr.L:** French, Arabic, Kabyl.

RADIO ALGERIE (Go.)

ADDR: 21, Bd. des Martyrs, Algiers. **Te:** 661590. **Telex:** 91014. **L.P:** Dir. Gen: A. Messaoudi. Dir. Gen. Adj: K. Saffer. Dir. Adm: A. Messaoudi Zitouni. Dir. Tec: A. Laghouati. St. Mgr. (Sound) B. Zerrouki.

FRENCH NETWORK: W 06.30–09.00, 11.00–14.30, 17.00–23.00. Sun 07.00–23.00.

	kc	m	kW		kc	m	kW
Algier II	890	331.1	200	Oran	1142	262.7	40
Constantine	1142	262.7	20	Alger OC1	11835	25.35	50

N: 07.30, 13.00, 20.00, 22.45.

ARABIC NETWORK: Mo–Thurs: 06.30–09.30, 11.00–00.20. Fri–Sun: 06.30–00.20.

	kc	m	kW		kc	m	kW
Algier I	980	306.1	200	Constantine II	1304	230	20
Oran II	1304	230.0	40	Alger OC2	9685	30.98	50

N: 07.00, 13.00, 20.00, 22.30, 00.00 (Sat 00.30); Headlines: 10.00, 12.00, 17.15.

KABYL NETWORK: D 06.30–08.00, 12.00–14.15, 18.00–21.30.

	kc	m	kW		kc	m	kW
Alger III	1421	211	40	Alger OC3	6160	48.70	50
Michelet	1570	191.0	5				

N: 07.15, 12.30, 19.30, 21.30.

SUPPLEMENTARY NETWORK (relays French, Arabic netw, local prgr's): 11.00–13.15, 17.00–23.00.

	kc	m	kW		kc	m	kW
Bouira	692	434	1	Souk Ahras	1079	278	1
Tlemcen	746	402	1	Bougie	1594	188.2	0.6
Setif	854	351	0.05				

ANN. F: "Ici Alger Radiodiff. Television de la Republique Algerienne Democratique et populaire" – Arabic: "Houna el Djazair Idhaatou el Djamhouriati el Djazariyati el Demaukrati hati oua ch'chaa bi'yati" – **V.** by letter. Records accepted.

ANGOLA (Portuguese West Africa)

L.T: GMT+1 h – **Pr.L:** Portuguese.

STATIONS: Call CR6 —. All st's comm. exc. 9) (Go.), 10) Rlg. (Catholic).

Short Waves:	kc	m	kW	Name
1) —	3295	91.05	1	R. Cl. de Benguela
2) RD	3704	80.99	1	R. Cl. do Huambo
3) RE	3960	75.76	1	R. Cl. de Malanje
4) SG	3970	75.57	1	R. Cl. de Huila
1) —	3975	75.47	1	R. Cl. de Benguela
5) RG	4770	62.89	1	R. Diamang
6) RY	4788	62.68	2	R. Cl. do Cuanza Sul
2) RD	4800	62.50	1	R. Cl. do Huambo
7) RN	4869	61.60	1	R. Cl. de Angola
8) RS	4905	61.16	1	R. Cl. do Sul Angola
9) RZ	4955	60.54	3	R. Angola
10) RB	4984	60.19	0.2	R. Ecclesia
11) RO	4995	60.06	1	R. Cl. do Bie
12) RM	5015	59.82	1	R. Cl. de Mocamedes
4) RH	5024	59.71	1	R. Cl. de Huila
13) RW	5033	59.59	1	R. Cl. de Cabinda
3) RE	5033	59.59	1	R. Cl. de Malanje
1) RF	5052	59.58	1	R. Cl. de Benguela
2) RD	5060	59.29	1	R. Cl. do Huambo
14) RV	5137	58.40	1	R. Cl. do Moxico
3) RE	5955	50.38	1	R. Cl. de Malanje
9) RZ	6025	49.79	10	R. Angola
1) —	6150	48.78	1	R. Cl. de Benguela
15) RU	6135	48.90	1	R. Cl. de Congo Portuguese
11) RO	7105	42.22	1	R. Cl. do Bie
7) RA	7140	42.02	0.5	R. Cl. de Angola
2) RD	7160	41.89	1	R. Cl. de Huambo
1) —	7160	41.89	1	R. Cl. de Benguela
8) RS	7175	41.81	1	R. Cl. do Sul Angola
12) RM	7230	41.49	0.35	R. Cl. de Mocamedes
3) RE	7240	41.44	1	R. Cl. de Malanje
2) RD	7280	41.21	1	R. Cl. do Huambo
6) RP	7285	41.18	0.2	R. Cl. do Cuanza Sul
1) RB	9505	31.56	1	R. Cl. de Benguela
12) RM	9515	31.53	1	R. Cl. de Mocamedes
3) RE	9605	31.23	1	R. Cl. de Malanje
5) RI	9612	31.21	1	R. Diamang
7) RL	9630	31.15	1	R. Cl. de Angola
2) RD	9665	31.04	1	R. Cl. do Huambo
4) SG	9675	31.01	1	R. Cl. de Huila
9) RZ	9765	30.72	1	R. Angola
10) RB	11755	25.52	1	R. Ecclesia
2) RD	11925	25.03	1	R. Cl. do Huambo
9) RZ	17705	16.94	10	R. Angola

Medium Waves: ° Short Waves.

Call	kc	m	kW	Call	kc	m	kW
7) RC	°857	350.0	1	2) RD	°1259	238.0	1
10) RB	°1010	297.0	1	9) RZ	°1350	222.2	1/3
8) RS	°1110	270.0	0.25	4) RA	°1367	219.5	1
6) RY	°1160	259.0	1	2) RD	°1500	200.0	0.5
				1) —	°1529	196.2	1/3

FM: 2) 97Mc, 105Mc 0.06kW.

1) C.P. 19, Benguela. **Cable:** Radio Clube. **Te:** 117 – **L.P:** Pres: J. dos Santos Ferro. Chief Prod: A. Freire.

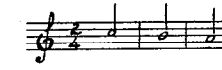
D.PRGR: W 05.45–07.30, 11.00–13.30, 17.00(Sat 16.00)–22.00. Sun 09.30–14.00, 16.00–20.00 – **N:** W 06.30, 11.30, 18.30, 21.45. Sun 12.30, 18.30 – **Wrp:** after N. 11.30, 18.30.

ANN: "R. Clube de Benguela, Angola, Provincia Portuguesa de Africa". Transmite a Emissora de Benguela, Angola – Provincia Portuguesa de Africa". "Esta é a Voz de Benguela a irradiar de Angola – Provincia Portuguesa de Africa" – **Int-Sig:** Solo on Kissange, a native instrument – **V.** by QSL-card or letter. Re. E, P. Records accepted.

2) C. P. 125 Nova Lisboa. **Cable:** Radiohuambo. **Te:** 41 – **L.P:** Pres: N. D. Ribeiro. Dir. Prgr: S. Coelho. Dir. Tec: J. Quintela.

D.Prgr: Portuguese: 06.00–07.00, 11.00–13.00, 14.30–21.30; on 3704kc 17.00–21.30 only. **N.:** 06.05, 11.30, 15.30, 17.00, 19.00, 21.20 on 1259/1500/5060/7160/9665/11925kc and FM. **Wrp:** 11.40, 19.00, 21.27, on 1500/9665kc. **Mbg:** Wed, Sat 06.15–06.40 on 1259/1500/5060/7160kc – **Umbundo (native language):** 17.00–18.00 on 1259/3704kc – **N:** 17.10 – **Ann: P:** "Agui Angola, Portugal, de Nova Lisboa transmite o R. Clube do Huambo, Uma voz portuguesa em Africa" (This is Angola, Portugal, R. Club of Huambo, Nova Lisboa – A Portuguese voice in Africa). **Umbundo:** "Kulo ko Angola Portugal. Ylo ó R. Clube yo Huambo, ko Nova Lisboa. Ocipama cetu ca Cruzeiro do Sul.

Int-Sig: Gong.



V. by QSL-card – **F.Pl:** Two 10kW sw. tr's 3704/7160kc December 63 to Rhodesia, Rep. of So. Africa, So. We. Africa in English, German.

3) C.P. 83 Malanje. **Te:** 30 – **L.P:** Pres: A. F. Martins.

D.PRGR: W 05.00–08.00, 11.00–13.30, 17.00–21.30. Sun 06.00–09.00, 11.00–20.00. **N:** 06.30, 11.50, 19.00 – **Ann:** "Aqui Portugal transmite o R. Clube de Malanje, em Angola Provincia Portuguesa de Africa" – **Int-Sig:** Some movements from "Reida Festa" on Guitar – **V.** by QSL-card – **F.Pl:** Mw-st.

4) C.P. 111. Sá da Bandeira. **Cable:** Radioclube. **Te:** 92 – **L.P:** Pres: Dr. E. Fernandes. Dir. Tec: J. Guimaraes. Secr: J. de Figueiredo Fernandes – **D.Prgr:** 06.30–09.30, 12.00–14.00, 15.30–17.00 on 1367/5024/9675kc, 17.00–20.30 on 1367/3970/5024kc – **Ann:** "R. Clube da Huila em Sá da Bandeira, Angola, Provincia de Portugal em Africa". **Int-Sig:** First movements from "Bailinho da Madeira" – **V.** by QSL-card. Records accepted.

5) Dundo, Lunda. **Cable:** Diamang, Portugalia – **L.P:** Dir. Gen: J. A. Bexiga – **D.Prgr:** W 18.00–19.30. Sun 11.00–12.30.

R. Diamang is a private st. which aims only to entertain the Diamang employees who work in the mining fields of Lunda. The prgr's are varied and consist only of classic, light and native music.

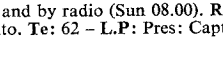
Ann: "Aqui Dundo, Angola, Provincia Portuguesa de Africa. R. Diamang. Estacao Emissora da Companhia de Diamantes de Angola". **Int-Sig:** At opening "Marimba" solo (native instrument of percussion similar to the xylophone) – **V.** by QSL-card. Re. in P. E. or F.

6) C.P. 10, Novo Redondo – **L.P:** Pres: C. de Corvallio Seixas, Dir. Tec: J. Queiroz. **D.Prgr:** W 07.00–10.30, 11.00–13.00, 17.30–21.00. Sun 07.00–14.00, 17.30–20.00 – **Ann:** "R. Clube do Cuanza Sul, Angola, Provincia Portuguesa d'Africa" – **Int-Sig:** National Hymn and Guitar – **V.** by QSL-card.

7) C.P. 229, Luanda. **Cable:** Radangola. **Te:** 3448. **L.P:** Pres: Com. M. de Albuquerque e Castro. Prod. Mgr: A. dos Santos e Sousa. Tec. Mgr: B. Victor.

D.Prgr: W 06.00–08.00, 11.00–14.00, 16.00–22.00. Sun 08.00–21.00. **N:** W 06.05, 06.40, 11.15, 11.50, 18.30, 21.50, Sun 11.50, 18.30. **Mbg:** Sun 08.00 – **Ann:** "Angola, Provincia Portuguese de Africa. De Luanda transmite Radio Clube de Angola, a vossa estaçao...".

Int-Sig:



V. by QSL-card and by radio (Sun 08.00). Records accepted.

8) C.P. 56, Lobito. **Te:** 62 – **L.P:** Pres: Capt. F. A. Aldeia.

D.Prgr: W 06.00–07.30, 11.00–13.00, 17.00–22.00. Sun 08.00–13.00, 14.30–20.00 – **Int-Sig:** 4 notes on guitar from "Maria da Fonte". 9) C.P. 1321, Luanda. **Te:** 2192 – **L.P:** Dir. Gen: F. de Carvalho. Dir. Tec: J. C. Proenca. Dir. Prod: J. A. Pinheiro. Dir. Adm: A. Diogo Jr. **D.Prgr:** W 06.00–07.30 on 1350/4955kc. 11.00–13.30 on 1350/4955/9765kc. 17.30–21.00 on 1350/4955/6025kc. 21.00–23.00 on 1350/4955/6025/17705kc. Sun 08.00–11.00 on 1350kc. 11.00–17.00 on 1350/4955/9765kc. 18.00–23.00 on 1350/4955/6025/17705kc.
N, Comm, Wrp: 06.05, 12.00, 19.00, 22.45 – **Actualities from Angola Metropolitan Portugal:** Sun 12.00, 19.00, 22.45 – **French:** D 11.30–12.00 on 9765kc.
Ann: "Aqui Portugal, Emissora Oficial da Provincia de Angola, Luanda" – F: "Ici Luanda Radiodifusion Nationale Portugaise de la Province de L'Angola" – V. by QSL-card. Re. very much appreciated.

Int-Sig:

10) C.P. 156, Luanda. **Cable:** "Ecclésia". **Te:** 2302 – **L.P:** Dir. Gen: J. M. Pereira. Dir. Tec: J. F. Dimiz da Gama.
D.Prgr: W 05.30–07.00, 09.00–13.00, 14.00–15.30, 17.30–21.00. Sun 07.00–09.30, 11.00–18.00 – **N:** W 06.00, 10.15, 12.00, 19.00.
Ann: "Aqui Portugal R. Ecclésia, Emissora Católica de Angola, em Luanda" – **Int-Sig:** Music from "A Trezo de Maio" – V. by QSL-card.
11) C.P. 33, Silva Porta. **L.P:** Pres: T. J. dos Reis Ramos – **D.Prgr:** 06.00–07.00, 11.00–14.00, 17.00–21.00 – **Ann:** "Radio Clube de Bié". **Int-Sig:** Guitar – V. by QSL-card.
12) C.P. 174, Mocamedes. **Cable:** Rádioclube. **Te:** 36 – **L.P:** Pres: R. Radich Junior – **D.Prgr:** W 06.00–07.30, 11.00–13.30, 17.00–21.00. Sun 10.00–14.00, 16.00–21.00 – **N:** 06.30, 12.00, 19.00, 20.50.
Ann: "Aqui Portugal. Transmite o R. Clube de Mocamedes, em Angola, Provincia Portuguesa de Africa" – **Int-Sig:** At opening "Monumental", folklore music piece played on accordion – V. by QSL-card.
13) C.P. 116, Cabinda. **Te:** 116. **L.P:** Pres: Dr. J. Delgado. Vice Pres: A. Novais – **D.Prgr:** W 07.00–08.00, 12.30–14.00, 19.00–22.00. Sun 07.30–09.30, 11.30–14.00, 18.00–21.00.
Ann: "Aqui Cabinda, Angola, Provincia Portuguesa d'Africa Transmite o Rádio Clube de Cabinda – **Int-Sig:** Gong – V. by QSL-card or letter.
14) C.P. 74, Luso. **Cable:** Radioclube – **L.P:** Pres: M. Simoes. Vice Pres: J. P. Albuquerque. Dir. Tec: N. S. de Oliveira.
D.Prgr: W 05.30–07.00, 11.00–12.30, 17.30–21.00. Sun 10.00–13.00, 16.30–21.00 – **N:** 07.00 (W), 11.30, 19.15, 20.50 (W) – **Ann:** "R. Clube do Moxico, em Luso, Angola, Provincia Portuguesa em Africa". **Int-Sig:** Gong – V. by letter.
15) C.P. 140, Carmona. **Cable:** Radioclube. **Te:** 26 – **L.P:** Pres: J. J. Nogueira – **D.Prgr:** W 06.00–07.30, 11.00–13.00, 18.00–21.30. Sun 08.00–10.00, 12.00–17.00. **N:** 06.30, 12.00, 19.00 – **Ann:** "R. Clube do Congo Portugues, em Angola, Provincia Portuguesa d'Africa". **Int-Sig:** Guitar and March: "Angola e nossa" – V. by letter.

ASCENSION ISLAND (British)

The BBC has placed an order with The Marconi Company for the supply of four 250kW sw-tr's for relay purposes. The st. will make it possible to improve reception of BBC-prgr's throughout West, Central & So. Africa, So. America, Caribbean area. Thus it will be especially valuable for the BBC's G.O.S. for English speaking listeners, together with the African Sce. in English and Hausa, the French Sce. for Africa and the Latin American Sce. in Spanish and Portuguese.

BASUTOLAND (Br. Protect.)

L.T: GMT+2 h – **Pr.L:** Sesotho, English.
RADIO STATION ZRE 41 (Pr.-Educational)
ADDR: P.O. Box 80, Maseru – **STATION:** 3824kc 78.46m 0.1kW – **HOME SCE. in Sesotho:** Fri 17.30–18.30, Sat 06.30–07.30 Educational prgr's – **ANN:** E: "This is ZRE41, Maseru" – V. by letter – **F.PL:** Power 0.5kW. Extension of prgr's.

BECHUANALAND (British Protectorate)

L.T: GMT+2 h – **Pr.L:** English.
R. STATION ZNB (Go.)
ADDR: Box 252, Mafeking – **L.P:** St. Dir: W. Coombes.
STATION: 5900kc 50.84m 1kW.
HOME SCE: W 11.00–12.00, 17.00–19.30. Sun 18.00–19.30.
N: 11.15, 17.15 (rel. SABC) – **ANN:** "This is ZNB at Mafeking calling you" – **INT-SIG:** ZNB in morse before tr. ann. – V. by letter – No QSL unless details given. Rp.

R. STATION ZND (Go.)
Pilot R. project of Bechuanaland Go.
ADDR: P.O. Box 63, Lobatsi. **Cable:** Bechinform.
STATION: ZND 3356kc 89.50 1kW.
HOME SCE. in English, Setswana: 15.30–17.30.
N: 16.00 (BBC), 16.10 (local Setswana) – **ANN:** "Ke tekeletso ka seroma-mowa mo frequency 3.356Mc mo Station ZND kwa Lobatsi".
INT-SIG: Cow bells – V. by QSL-card – **F.PL:** new st. at Gaberones.

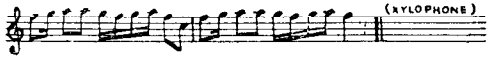
BURUNDI (Kingdom)

L.T: GMT+2 h – **Pr.L:** Kirundi, Kiswahili.
RADIO BURUNDI (Go.)
ADDR: B.P. 1900, Usumbura. **Te:** 2236. **Cable:** Inforburundi. **L.P:** Dir. of Inf: L. Kahungu. Dir. Tec: Ch. Laurent.
STATIONS: 1164kc 400W – 4793kc 62.60m 8kW – 6195kc 48.43m 10kW.
HOME SCE. in French, Kirundi, Kiswahili: 04.00–05.30, 10.00–11.30, 15.00–20.45.
N. in French: 10.45 (Sun 12.15), 18.00 – **N. in Kirundi/Kiswahili:** 11.00, 17.30 – **L.L:** English: Mo 16.00, Sat 16.30. French: Wed 16.00.
ANN: F: "Ici Bujumbura, st. nationale de Radiodiff. du émettant dans les bandes des 48m, 62m et 258 metres". Kirundi: "Hano ni Radiyo Bujumbura, ivugira ku murongo wa metero 48m 62 na m 258" – **INT-SIG:** A Rundi (umuduli) vocal bow: This is an ordinary bow that is stretched over the tendon of an ox, fitted with a calabash bowl instead of a resonance box. This instrument produces a monotonous rhytmical tone consisting of two characteristic sounds – V. by QSL-card. Records accepted – **PUB:** "Infor-Burundi" fortnightly bulletin in French free on request to B.P. 1400, Bujumbura.

CAMEROON (Republic)

L.T: GMT+1 h – **Pr.L:** French, English, Vernaculars.
RADIO YAOUNDE (R. Cameroon I) (Go.)
ADDR: B.P. 281, Yaounde. **Cable:** "Radio Yaounde". **Te:** 2515 – **L.P:** Dir. A. Moutongo-Black. Dir. Tec: J. F. Fotso. Dir. Prgr: T. Noudiki. Dir. N: D. Amiot-Priso.
STATIONS: m.w. 1kW. s.w. 4/30kW.
1286kc 233m – 4972.5kc 60.33m – 6040kc 49.67m
HOME SCE: W: 05.00–07.00 on 1286/4972.5kc, 11.15–13.30(Sat 15.00) on 1286/6040kc, 16.30–21.00 on 1286/4972.5kc. Sun: 07.00–17.00 on 1286/6040kc, 17.15–21.00 on 1286/4972.5kc.
French: W: 05.30–07.00, 11.15–13.00(Sat 13.30), 17.30(Sat 17.15)–18.45, 19.15–21.00. Sun: 07.00–13.30, 17.15–18.45, 19.15–21.00.
English: W: 05.00–05.30, 13.00–13.30, 16.30–17.30, 18.45–19.15. Sat/Sun: 05.00–05.30, 13.30–15.00. **French/English:** Sun: 15.00–17.00.
Vernaculars: Mo: 17.00–17.30 (Ewondo), Tues 17.00–17.30 (Bamiléké), Wed 17.00–17.30 (Ewondo), Sat 19.45–20.30 (French/English/Vernaculars) – **N:** W: 06.15, 12.00(Sat 12.15), 17.30, 18.30, 21.30. Sun: 06.30, 07.50, 12.00, 17.30, 18.30, 21.30.
ANN: "Ici Yaoundé, Radiodiff. de la République Fédérale du Cameroun, Poste National" – **INT-SIG:** Local music on balafon. V. by QSL-card or letter. Rp. Re. in E, F.

RADIO DOULA (R. Cameroon II) (Go.)
ADDR: B.P. 986, Douala. **Cable:** Radio Douala. **Te:** 4575.
L.P: Dir: F. Mouasso-Priso.
STATIONS: 1kW 1448kc 207.2m – 6115kc 49.06m.
HOME SERVICE in French, Douala, Bassa, Bamileke, Yaoundé: W 05.15–07.00, 11.15–13.00, 17.00(Sat 15.00)–21.00. Sun 07.00–21.00
ANN: F: "Ici Douala, Radiodiff. du Cameroun" – **INT-SIG:** At opening and close down and 11.15 and 17.00: Hymn of Cameroon: "O Cameroun berceau de nos ancêtres" fanfare.



V. by QSL-card or letter. Rp – **PUB:** Prgr. sched. (weekly).

R. GAROUA (R. Cameroon III) (Go.)
ADDR: B.P. 103, Garoua. **Te:** 012 – **L.P:** Dir: G. Derrier.
STATIONS: mw. 1kW, sw. 4/30kW.
1348kc 224.0m – 5010kc 59.88m – 7240kc 41.44m.
HOME SERVICE in French, Haoussa, Foulfouldé: W 11.15–13.15 (Fri 13.45), 17.30 (Thurs, Sat 17.00)–21.00. Sun 07.00–13.15, 17.00–21.30. **N. in French:** 12.00(Sat 12.15), 19.30.
ANN: "Ici Garoua, Radiodiff. du Cameroun" – **INT-SIG:** Flute & tamtam – V. by QSL-card.

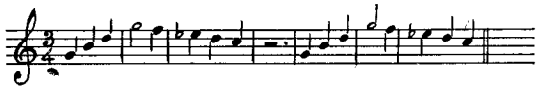
R. BUEA (Go.)
ADDR: B.P. 281, Yaounde – **L.P:** Dir. S. M'Poual.
STATION: 5984kc 50.13m 1kW.
HOME SCE. in English: 06.00–08.00(Sun 12.00), 14.30–20.15. **N:** W 06.15, 14.45, 18.00, 19.45. Sun 06.45, 15.00, 19.45.

CANARY ISLANDS (Spanish)

L.T: GMT – Pr.L: Spanish, English.

RADIO LAS PALMAS (Comm.)
AD: 10 min. per h – ADDR: Calle Triana 134, Dpdo, Las Palmas. Cable: Radio Las Palmas. Te: 20351 – L.P: Dir: P. Pastor S.
STATION: EAJ50 1313kc 228.5m 5kW.
HOME SCE: D 08.00–01.00 – N: 09.15, 13.30, 14.15 (local), 21.00 – Wrp: 09.30, 13.05, 21.15 – T.S: 12.00, 22.00 – Mbg: 10.30.
ANN: "Transmite E.A.J.50 Radio Las Palmas" – INT-SIG: Pasodoble "Islas Canarias" (orchestral) – V. by QSL-card. Records accepted.

RADIO ATLANTICO (Comm.)
ADDR: Ca. General Franco 50, Las Palmas. Cable: Radio Atlantico. Te: 21083 – L.P: Dir: Jose A. Gutierrez Peña. Dir. Tec: J. J. Quevedo Bautista.
STATIONS: 1484kc 202.2m 5kW – 7000kc 42.86m 1kW – 9400kc 31.92m 5kW – FM: 93.9Mc 5kW.
HOME SCE. in Spanish: On 1484kc: D 07.00–00.15 – N: 08.15, 08.45, 13.30*, 14.00, 20.00, 21.00*(rel. R. Nacional) – T.S: 08.00, 24.00.
ANN: Sp: "Transmite R. Atlantico, E.C.S. no 4, Emisora Sindical de las Palmas de Gran Canaria Islas Canarias" – INT-SIG: Canary guitar-chords – V. by QSL-card or letter. Records accepted.



RADIO CLUB TENERIFE (Cultural, Comm.)
ADDR: Castillo 15, Santa Cruz de Tenerife – L.P: Pres: F. A. Acuña Dorta. Secr: J. Siliuto Mendez.
STATIONS: EAJ43 1412kc 212.4m 0.4kW: 09.00–24.00.
ANN: "R. Club Tenerife, en Santa Cruz de Tenerife, Islas Canaris.
INT-SIG: 22.00 "Islas Canarias". Close 24.00 with "Los Voluntarios" and Nat. Anthem – V. by QSL-card.

RADIO JUVENTUD DE CANARIAS (C.A.R.)
ADDR: Castillo 27, Santa Cruz de Tenerife.
STATION: EFJ57 1248kc 240m 1.2kW.
HOME SCE: 08.00-09.00, 12.00–16.00, 17.50–24.00.
ANN: "Radio Juventud de Canarias".
INT-SIG: The first notes from "Arroro canario". V. by letter.

LA VOZ DE LA ISLA DE LA PALMA
ADDR: Emisora Sindical, Santa Cruz de la Palma. Te: 862. Cable: Emisora – L.P: Dir: M. Fernández de las Casas. Dir. Tec: E. Fuillerat C – STATION: 7385kc 40.62m 0.35kW.
HOME SCE. in Spanish: D 09.00–16.00, 18.00–23.00. N: 09.10, 12.10, 13.30*, 14.15, 21.00*, (*=rel. R.N.E.).
ANN: Sp: "La Voz de la Isla de la Palma Emisora Sindical, Santa Cruz de la Palma" – INT-SIG: "La Orgia Dorada" (Military March). V. by letter. Records accepted.

LA VOZ DE CANARIAS
ADDR: Ca. Mendez Nuñez 80, Sta. Cruz de Tenerife – L.P: Dir: F. Montoya R – STATION: 90.6Mc: 19.00–23.00.

LA VOZ DEL VALLE
ADDR: Plaza del Ayuntamiento, Puerto de la Cruz (Tenerife) – L.P: Dir: F. Ortiz – STATION: EOS34 1484kc 202m 0.35kW.

RADIO POPULAR DE GÜIMAR
ADDR: San Pedro Arriba 4, Güimar (Tenerife) – L.P: Dir: C. Torres B. Dir. Tec: J. Alvarez M – STATION: EOP83 1304kc 230m 0.6kW.
HOME SCE: 08.00–11.00, 13.00–19.00, 20.00–23.30.

CAPE VERDE ISLANDS (Portuguese)

L.T: GMT–2 h – Pr.L: Portuguese. English.

RADIO CLUBE DE CABO VERDE (Pr.)
ADDR: C.P. 26, Praia. Cable: "Radio clube". Te: 344. L.P: Pres: Dr. A. de Cunha Leal. Dir. Tec: F. Abrantes da Cunha.
STATIONS: CR4AA 3960kc 75.76m 5kW – 4977kc 60.28m 0.5kW.
HOME SCE. in Portuguese: 08.45–09.45, 14.15–16.15 (Sun 08.45–09.45, 12.00–14.00) on 4977kc, D 20.00–22.00 on 3960kc – N: 21.30.
ANN: "Aqui Praia, estação de ondas curtas do R. Clube de Cabo Verde" – INT-SIG: Five notes on marimba – V. by QSL-card.

RADIO CLUBE MINDELO (Pr.)
FI: By state adv. and private help – ADDR: C.P. 101, S. Vicente. L.P: Pres: A. Feijóo Pereira. Mgr: E. de Matos. Dir. Tec: J. de Azevedo.
STATION: CR4AB 4755kc 63.09m 0.25kW.
HOME SCE: 09.00–09.55, 14.00-15.00, 20.30–22.00 – N: 21.00.
ANN: "Aqui CR4AB, Estação Emissora do R. Clube Mindelo em S. Vicente de Cabo Verde" – V. by QSL-card or letter – F.PL: Two sw-st's (1 and 0.25kW).

R. BARLAVENTO (Non-comm.)
ADDR: C.P. 29, S. Vicente – L.P: St. Mgr: J. M. Provoa, T. Silva Dir. Tec: T. Barrio Vieira.
STATION: CR4AC 3960kc 75.76m 1kW.
HOME SCE: W 14.30–15.30, 22.00–24.00. Sun 11.00–13.00, 15.00–17.00, 22.00–24.00 – N: 14.30, 22.30.
ANN: "R. Barlavento, S. Vicente de Cabo Verde, provincia Ultramarina Portuguesa" – INT-SIG: Gong. At 22.00-24.00 "Cabo Verde tena Minha" on accordeon – V. by QSL-card.

CENTRAL AFRICAN REPUBLIC

L.T: GMT+1 h – Pr.L: French, Sango.

RADIO BANGUI (Go.)
FI: By the French and C. African State – ADDR: P.B. 940, Bangui. Te: 2357 – L.P: Dir: P. Pouillon. Dir. Tec: M. Mercier.
STATIONS: mw. 0.25kW, sw. 30kW (System: TRT).
1570kc 190m – 5035kc 59.58m – 7220kc 41.55m.
HOME SERVICE in French & Vernaculars:
W 04.30–06.30 on 1570/5035kc, 11.00–12.30(Sat 16.30) on 1570/7220kc, 16.30–21.00(Sat 22.15) on 1570/5035kc. Sun 06.00–11.00 on 1570/5035kc, 11.00–16.30 on 1570/7220kc, 16.30–21.00 on 1570/5035kc. N. in French: W 05.00, 06.00, 11.35, 18.30, 20.50. Sun 08.00, 11.30, 17.30, 20.50 – Sango: W 05.30, 12.10, 17.15. Sun 08.15, 17.15 – L.L. (English): Mo, Thurs 05.10, 17.00 – Mbg: Sun 17.30.
ANN: "Ici Bangui Radiodiff. Centrafricaine" – INT-SIG: First seven bars of C. African hymn, played on the Zanza (a local instrument) – V. by QSL-card. Re. in French. Records accepted.

CHAD (Rep. of the)

L.T: GMT+1 h – Pr.L: French, Arabic, Sara.

RADIODIFFUSION NATIONALE TCHADIENNE (R. Tchad)
ADDR: B.P. 168, Fort Lamy. Cable: Radio Tchad. Te: 2273.
L.P: Dir: P. Aymard. Dir. Tec: V. Amariglio. Dir. Prgr: P. Touade.
STATIONS: 1538kc 195.0m 1kW – 4904kc 61.18m 30kW.
6165kc 48.66m 30kW – 9615kc 31.20m 4kW.
HOME SCE: W 05.00–06.00 on 1538/4904kc, 11.00–14.00 on 1538/6165/9615kc, 16.00–21.00 on 1538/4904kc. Sun 05.00–07.00 on 1538/4904kc, 07.00–16.30 on 1538/6165kc, 16.30–21.00 on 1538/4904kc. French: 05.30–05.45, 12.00–13.00, 18.30–21.00. N: 05.30, 12.30, 19.00, 20.55. Arabic: 05.00–05.15, 11.00–12.00, 17.30–18.30. N: 05.15, 11.40, 18.00. Sara: 05.45–06.00, 13.00–14.00, 16.00–17.30. N: 05.45, 13.40, 17.00.
ANN: "Ici Fort Lamy, Radiodiff. Nationale Tchadienne émettant dans les bandes..." or "Ici Fort Lamy, Radiodiff. Nationale Tchadienne" – INT-SIG: French (open and close down): Tchadienne – Arabic: Notes played on lute (local) – Sara: Notes played on "balaons" (local) – V. by QSL-card. Rp.

COMORES ISLANDS (French)

L.T: GMT+3 h – Pr.L: French, Vernaculars.

RADIODIFFUSION TELEVISION FRANÇAISE (Go.)
ADDR: B.P. 29 Dzaoudzi, Ile Mayotte, Comores. Te: 25 – L.P: Dir. Gen: A. X. Sabas.
STATIONS: 3331kc 90.06m – 7260kc 41.32m 4kW.
HOME SCE. in French, Comorian: On 3331kc: 03.30–05.00, 09.15–10.30 on 7260kc, 15.30–18.30 on 3331kc (during local wintertime 3331kc is used for all tr's) – N: French: 04.00, 09.30, 17.00 – Comorian: 16.15 – Wrp: 09.30 – T.S: 04.00, 09.30, 17.00. ANN: "Ici les Comores – Radiodiff.-Télévision-Française, station de Dzaoudzi" – INT-SIG: Folklore Music played on native instrument – V. by letter. Rp. Records accepted.

CONGO (Rep. of)

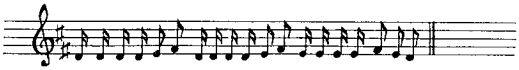
L.T: Leopoldville, Coquilhatville: GMT+1 h; Elisabethville, Stanleyville, Bukavu, Luluabourg: GMT+2 h – Pr.L: French, Lingala, Kikongo, Tshiluba, Swahili.

RADIODIFFUSION CONGOLAISE (Go.)
ADDR: Nat. Sce: B.P. 3171. Int. Sce: B.P. 7699, Leopoldville. Cable: Radio Congolaise. Te: 3171 – L.P: Vice Dir: A. Luseko. Dir. Tec: J. Mavungu.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
4880	61.48	7.5	11755	25.52	50	11865	25.28	100
7130	42.08	10	11795	25.43	50	15245	19.68	10
7170	41.84	10	11830	25.36	50			

NATIONAL PRGR. (Leopoldville):
French: 04.00–07.00(Sun 09.00) on 4880/7170/11830kc; 10.00–13.00 on 7130/11830kc; 15.30–21.00 on 7130/11830kc. N: 04.30, 05.30, 06.30, 10.30, 11.30, 12.30, 16.30, 18.30, 20.30. Vernaculars: 04.00–07.00, 15.00–21.00 on 11755kc; 10.00–13.00 on 11795kc. Tshiluba/Swahili: 04.00–05.30, 10.00–11.30, 15.00–18.00. N (in Tshiluba): 04.45, 11.15, 17.15. N (in Swahili): 05.00, 11.00, 17.00. Lingala/Kikongo: 05.30–07.00, 11.30–13.00, 18.00–21.00. N: 06.00, 11.45, 18.30, 20.00.
INTERNATIONAL SERVICE (Exp. tr's until 31. 12. 63) on 11865/15245kc:

English: 15.00–16.15, 19.30–21.00. **N:** 15.45, 19.30, 20.30 – **Swahili:** 16.15–17.00. **N:** 16.30 – **Portuguese:** 17.00–18.00. **N:** 17.30 – **French:** 18.00–19.30. **N:** 19.00.
ANN: F: "Ici Léopoldville, Radiodiffusion Congolaise, Poste Mondial" – **INT-SIG:** Tam Tam (native zylophone beat) –



REGIONAL STATIONS (in French and regional languages):
R. Leopoldville: 4880kc 61.48m 7.5kW: 04.00–06.30, 10.30–13.00, 16.00–20.30.
R. Coquilhatville: Addr: B.P. 1061, Coquilhatville – **L.P:** Dir: A. Nzondomyo.
5993kc 50.05m 10kW: 04.30–06.30, 13.00–14.30 (Sat 11 00–14 30. Sun 09.00–14.30), 15.00–20.00.
R. Bukavu: Addr: B.P. 475, Bukavu – **L.P:** Dir: B. Mbula.
4839kc 61.99m 10kW: 04.00–06.00, 10.00–12.00, 15.00–20.00(Sat/Sun 22.00).
R. Luluabourg – L.P: Dir: L. Wanya.
6125kc 48.98 m 10kW: 15.30–19.30.
R. Stanleyville: Addr: B.P. 1745, Stanleyville – **L.P:** Dir: G. Lemazani.
6085kc 49.30m 10kW: 04.00–06.30(Sun 07.00), 10.00–12.30(Sat/Sun 13.00), 15.30(Sun 15.00)–20.00(Sat 22.00).
R. Elisabethville: Addr: B.P. 1038, Elisabethville.
Kiswahili Net: 5933kc 50.55m 10kW: 9540kc 31.45m 20kW – **French Net:** 11870kc 25.27m.
These services are to be altered. Details not yet finalised.
Brown Boveri, Switzerland, delivered 10kW tr's to Leopoldville (3×10), Bukavu, Stanleyville, Coquilhatville, Luluabourg, Elisabethville (3×10); 100kw tr. (Elisabethville).
The Marconi Company Ltd., GB: One 10kW tr.

RADIO COLLEGE (Priv-Rel).
ADDR: B.P. 296, Elisabethville – **STATIONS:** OQ2AC 0.25kW: 3390kc 88.50m – 5200kc 57.69m – 7200kc 41.67m – **FM:** 96Mc 0.05kW.
HOME SCE. in French, Kiswahili: Sun 07.00–10.00, D 16.00–19.30.

UNITED NATIONS ORGANISATION (ONUC)
L.P: R. Officer: A. Familiant – **STATIONS:** 5933kc 10kW – 9540kc 31.45m 20kW – 11870kc 25.27m – **D.PRGR. in French, Swahili, English:** 06.00–06.30, 11.00–11.30, 17.30–18.30. **N: French:** 06.00, 11.00, 17.30. **Swahili:** 06.10, 11.10, 18.10. English: 06.20, 11.20, 18.20 –
ANN: "This is the Voice of the United Nations in Elisabethville broadc. through the courtesy of R. diff. Nationale Congolaise, Provincial Station of So. Katanga". S/off: "You have just heard UN news in English. This is the Voice of the United Nations in Elisabethville" – **V.** by letter.

CONGO (Franco-African Community)

L.T: GMT+1 h – **Pr.L:** French, English, Portuguese.
RADIO BRAZZAVILLE
ADDR: B.P. 108, Brazzaville – **Cable:** Radiodiffusion. **Te:** 2234.
L.P: Dir. Gen: C. Boissiere. Dir. Adm: A. Taillade. Dir. Tec: H. Defroyenne. Dir. Inf: R. Branellec. Dir. Prgr: M. Dumont.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
5970	50.25	4	11725	25.58	50	15235	19.69	50
7105	42.22	4/50	11950	25.10	50	15445	19.43	50
9730	30.83	1.5	11970	25.06	4	17720	16.93	50
11710	25.62	50	15190	19.75	50	21500	13.90	1.5/50

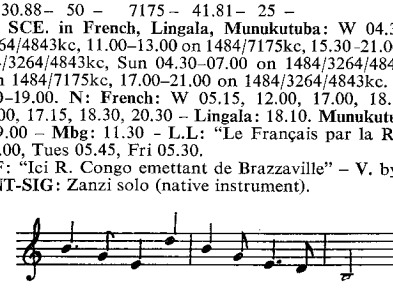
INTERNATIONAL SERVICE
I=C. Af; II=Ea. Af; III=Madagascar; IV=We. Af; V=F. East.

Times	kc+Areas	News
04.30–07.15	15445(IV), 11725(I), 9730(II) 7105(III), 5970(I).	F: 04.30, 05.00, 06.00 07.00–E: 05.15
08.30–09.15	21500(III), 15445(II)	E: 08.30–F: 09.00
10.00–12.30	15445(II+III), 11970(I)	E: 10.00, 11.00, 12.00 P: 10.40, 11.40
11.00–12.30	21500(I), 15190[1](II), 11710(IV), 7105(I), 9730(I)	F: 11.30
12.30–13.00	21500(II), 17720(I), 15445(IV) 11710(V), 7105(I), 9730(I)	F: 12.45
13.00–13.30	17720(V)	E: 13.00(W)
13.30–14.50	21500(V), 17720(V)	F: 13.30, 14.30–E: 14.00
16.00–19.00	21500(I), 15190[2](II), 11725[3](III), 11710(IV)[4] 9730(I), 7105(I), 5970(I)	F: 16.00(W), 17.30 18.00–E: 17.00–P: 18.45
19.00–20.30	15190(II+IV)	E: 19.30–F: 20.00
19.00–21.50	21500(I), 15235(II), 15190[5](IV),11950(I),11725(I), 9730(I), 7105(I), 5970(I)	F: 19.00, 20.30, 21.30

[1] to 12.00; [2] from 17.30; [3] from 17.30; [4] to 17.30; [5] from 20.30.

Additional Prgr's (Sun only): 09.15–10.55 on 7105, 11710, 21500kc; 13.45–17.00 "Sport & Music" (rel. Paris) on 7105, 11710kc (from 14.00 also on 17720, 21500kc) – **L.L: (French by Radio):** For English speaking listeners: Thurs, Sun 19.45, other days 13.15, 16.45, 19.45. For Portuguese speaking listeners: W 18.30.
ANN: F: "Ici R. Brazzaville" E: "This is R. Brazzaville broadcasting from the Congo". P: "Aqui R. Brazzaville, Brazzaville".
INT-SIG: Five different notes played on a native instrument (Kisanzi) consisting of several vibrating iron bars attached to a wooden box – V. by QSL-card or letter. **Rp – PUB:** Prgr. sched. free.

RADIO CONGO (Go.)
ADDR: B.P. 2241, Brazzaville. **Cable:** Radio Congo. **Te:** 2408. **L.P:** Dir: Malonga. Dir. Tec: Bitran.
STATIONS (System: TRT, CFTH).
1484kc 202.2m 4kW 3264kc 91.90m 4kW 4843kc 61.95m 25kW 9715– 30.88– 50 – 7175– 41.81– 25 –
HOME SCE. in French, Lingala, Munukutuba: W 04.30–06.30 on 1484/3264/4843kc, 11.00–13.00 on 1484/7175kc, 15.30–21.00 (Sat 22.00) on 1484/3264/4843kc, Sun 04.30–07.00 on 1484/3264/4843kc, 07.00–17.00 on 1484/7175kc, 17.00–21.00 on 1484/3264/4843kc. On 9715kc: D 17.00–19.00. **N: French:** W 05.15, 12.00, 17.00, 18.30, 20.30 – Sun 12.00, 17.15, 18.30, 20.30 – **Lingala:** 18.10. **Munukutuba:** 18.20 – **Wrp:** 19.00 – **Mbg:** 11.30 – **L.L:** "Le Français par la Radio": Mo, Wed 16.00, Tues 05.45, Fri 05.30.
ANN: F: "Ici R. Congo emettant de Brazzaville" – **V.** by QSL-card. Rp – **INT-SIG:** Zanzi solo (native instrument).



DAHOMEY (Republic)

L.T: GMT+1 h – **Pr.L:** French, Vernaculars.
RADIO DAHOMEY (Go.)
FI: By Go. and OCORA – **ADDR:** Radiodiff. du Dahomey, B.P. 366, Cotonou. **Cable:** Radiodahomey. **Te:** 2040. **L.P:** Dir. Gen: H. da Piedade. Dir. Tec: V. Comlan. Dir. Inf: J. Vieyra.
STATIONS: 1475kc 203.4m 1kW – 4870kc 61.60m 30kW.
HOME SCE: French, Fon, Yoruba, Dendi, Bariba, Mina: Mo-Fri 05.15–06.45, 11.15–12.30(Thurs 13.00), 17.00–22.00, Sat 05.15–06.45, 12.00–23.00. Sun 07.00–22.00 – **N. French:** 05.35 (W), 06.15 (W), 11.40 (Sat 12.40), 12.25 (Mo, Tues, Wed, Fri), 12.55 (Thurs), 17.00 (W), 19.00, 21.15 (W). **Vernaculars:** W 17.05–18.05, Sun 17.15–18.30 – **L.L: (English):** W 06.00–06.15 – **Mbg.** (Le coin des curieux): Mo 19.30–20.00 – **Educational Magazine:** Wed 19.30–19.45, Thurs 19.30–20.00.
ANN: "Ici Cotonou, Radiodiff. du Dahomey émettant sur...".
INT-SIG: Dahomey Tam-Tam – V. by QSL-card. Rp. – **F.PL:** New st. at Parakon. TV – **PUB:** Prgr. schedule (weekly).

EGYPT (United Arab Rep.)

L.T: GMT+2 h (Su. 1/5–30/9 GMT+3 h) – **Pr.L:** Arabic.
U.A.R. BROADCASTING CORPORATION OF CAIRO (Go.)
FI: By state subsidy, adv, Electric Current taxes – **AD:** allowed in Popular-Cultural Prgr. – **ADDR:** Prgr. Authority: U.A.R. Broadc. & TV Corpo, 4 El Sherifein Str, Cairo. **Cable:** "Kahiradio". Engineering Authority: General Egyptian Establishment for Cinema, Broadc. & TV: TV-Bldg, Kornish Rd, Cairo. **Cable:** Cibrotev – **L.P: Prgr. Authorities:** Dir. Gen: M. A. Hammad. Dir. Sound Prgrs: A. H. El-Hadidi. Dir. TV Prgr's: H. Helmy. Dir. Adm: M. M. Taifour. Gen. Contr. of Research and Internat. Rel: M. El-Bassiouni. **Eng. authorities:** Chmn. of Board of Dir's: S. Amer. Dir. Egyptian Establishment for Cinema, Radio & TV: A. Zayan. Dir. Engineering Broadc. & TV: A. Kandeel. Gen. Contr. of Transmitting: A. Ismail.
STATIONS: **Medium Waves**

	kc	m	kW		kc	m	kW
Cairo III	557	538.6	50	Assiout	980	306.1	5
Batra I	620	483.9	450	Minia	1079	278.0	5
Cairo II	710	422.0	100	Luxor	1079	278.0	5
Cairo I	773	388.1	50	Sohag	1142	262.2	5
Batra II	818	366.7	450	Asswan	1178	254.7	10
Cairo VI	926	324.0	10	Alexandria	1277	234.9	10

Short Waves: 50/70/90/100kW

kc	m	kc	m	kc	m	kc	m	kc	m
6080	49.34	9630	31.15	9785	30.66	12050	24.9	17690	16.96
7050	42.55	9665	31.04	11745	25.54	15115	19.85	17730	16.92
7075	42.40	9715	30.88	11910	25.19	15210	19.72	17760	16.89
7140	42.02	9750	30.77	11915	25.18	15310	19.60	17785	16.87
7180	41.78	9755	30.76	11930	25.15	15350	19.54	17875	16.79
9475	31.66	9775	30.69	11940	25.13	15430	19.44	17905	16.75
9495	31.60	9780	30.68	11985	25.03	15475	19.38	17920	16.74

Brown Boveri, Switzerland: Alexandria 4 s.w. tr's 250kW, Abu Zaabal 2 s.w. tr's 100kW, 2 m.w. tr's 20kW. Mokattam 1 s.w. tr' 100kW.
Continental Electronics, USA: 6 m.w. tr's à 5–10kW to Alexandria, Asswan, Assiout, Luxor, El Minia, Sohag.
The Marconi Company, Ltd, GB: 5×2kW, 2×100kW tr's Abu Zaabal.

HOME SERVICE

MAIN ARABIC PRGR. * Fridays only.
03.55–06.00 on 818/980/1079/1142/1178/**7075/9775/15475kc.**
06.00–07.00 on 773/980/1079/1142/1178/**7075/11985/15475kc.**
07.00–08.00 on 773/980/1079/1142/1178/**9775/11985kc.**
07.00–09.00* on 773/980/1079/1142/1178/**9775/11985kc.**
08.00–11.00 on 773/1079/1178/**9775/11985kc.**
09.00–11.00* on 773/980/1079/1142/1178/**9775/11985/15475kc.**
11.00–15.00 on 818/980/1079/1142/1178/**9775/11985/15475kc.**
15.00–23.50 on 818/980/1079/1142/1178/**7075/9775/15475kc.**
N: 05.00, 12.30, 15.00, 18.30, 21.00, 23.30 – **Comm:** 06.00, 12.45, 15.30, 18.45 – **Nat. Music:** 05.30, 09.30, 11.15, 14.30, 17.15 – **Prgr. Preview:** 04.44, 14.45 – **T.S:** Cairo University Clock at the beginning of the main news bulletins.
VOICE OF ARABS: 03.00–07.00 on 620/7050/11745kc, 07.00–09.00 (Tues 10.00) on 710/7050/11745kc, 09.00(Tues 10.00)–15.00 on 620/7050/11745kc, 15.00–00.15 on 620/7050/11745/15430kc – **N. Comm:** 03.30, 03.55, 07.15, 10.30, 12.00, 12.15, 14.00, 15.00, 18.00, 19.10, 20.30, 22.00, 23.15 – **Palestine Prgr:** 04.00–06.00, 13.00–14.00.
SOUDANESE PRGR: 05.00–07.00 on 710kc, 14.00–17.28 on 773kc – **N, Commentary:** 06.15, 14.20, 14.50, 16.30.
SECOND PRGR. (Cultural): 19.00–22.15 on 773kc.
POPULAR CULTURAL PRGR: 14.00–23.30 on 710kc – **N:** D 14.30, 17.15, 22.30 – **ALEXANDRIA REG. PRGR:** 15.00–22.00 on 1277kc – **N:** D 17.30, 19.30.
FOREIGN LANGUAGES PRGR. (Local Service): 05.00–08.00, 10.30–14.00 on 557kc, 14.00–17.00 on 926kc, 17.00–22.00 on 557kc (Fri, Sun also 08.00–10.30 on 557kc) – **N, Comm: English:** 05.30, 12.30, 18.00 – **French:** 06.00, 12.00, 19.00 – **German:** 16.00 – **Greek:** 05.00, 13.00 – **Italian:** 15.00.

FOREIGN SERVICE

To So. & So.Ea. Asia: 10.30–15.30 on 17905kc (Arabic 10.30, Bengali 12.30, **English** 13.30, Urdu 14.30), 11.00–14.30 on 17920kc (Malayan 11.00, Thai 11.45, Indonesian 12.30, Pushtu 13.30).
To Ea. & C. Africa: 14.45–16.55, 17.45–19.00 on 17785kc (Amharic 14.45, Swahili 15.30, Lingala 17.45, Sosuto 18.30). 15.45–18.30 on 17905kc (Sudanese accents 15.45, Nianga 16.00, Somali 16.45, **English** 17.45).
To W. Africa: 19.30–21.45 on 17690kc (English 19.30, Hausa 20.15). 18.45–20.45 on 15210kc (French 18.45, Foulani 19.45).
To Mid. East: 15.00–17.30 on 11985kc (Persian), 16.30–17.30 on 9475kc (Kurdish 16.30, Turkish 17.30).
To Europe: 18.30–23.30 on 9475/11910kc (Italian 18.30, French 19.30, German 20.30, **English** 21.30, Arabic 22.30).
To No & So. America: 00.00–02.45 on 9775/15310 kc (Portuguese 00.00, Spanish 00.45, Arabic 01.30).
Dictation Speed News: 06.00–06.30 on 7075/11930kc Arabic, 06.30–07.00 on 7075/11930kc **English,** 13.30–13.50 on 7075/15430 Arabic.
INT-SIG: Camel Bells – **V:** Re. wanted. They are answered by QSL-card. Re. should be addressed to Propagation & Monitoring Dept. U.A.R. Broadc. and TV, Maspero, Cairo – **PUB:** Prgr. schedules twice per year. Weekly and quarterly magazines in Arabic.

ETHIOPIA

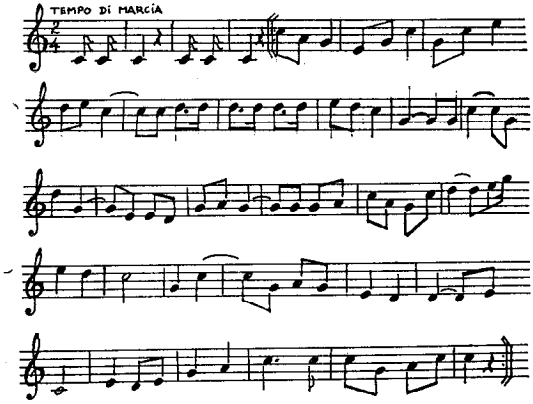
L.T: GMT+3 h – **Pr.L:** Amharic, Arabic, English, Somali.

RADIO ADDIS ABABA (Go.)
FI: By Go – **AD:** After N. in all languages.
ADDR: R. Division, Ministry of Information, P.O. Box 1364, Addis Ababa. **Cable:** Ethiopress. **Te:** 12356 – **L.P:** Minister: B. G. T. Hawriat. Asst. Minister: J. Tesfazgi. Dir. Gen: Z. Reta. Studio Dir. Tec: T. Y. Dafla. Gen. Mgr: H. Ruud.

STATIONS: Addis Ababa

kc	m	kW	kc	m	kW	kc	m	kW	kc	m	kW
870	345.0	1	7290	41.15	10	11760	25.51	10	17775	16.88	10
6185	48.50	10	9610	31.22	10	15300	19.60	10			

HOME SCE: Amharic: 04.30–05.00(W) on 870/6185kc; 05.00–05.30 (W) on 870/6185/7290kc; 07.00–08.00(Sun) on 870/6185kc; 11.00–12.00(Sat 13.00, Sun 13.30) on 870/7290/9610kc; 17.00–18.00 on 870/6185/7290, 18.00–19.00 on 870/6185kc; 19.00–20.00 (Foreign Music) on 870/6185/7290kc – **Somali:** 04.00–04.30(W), 06.30–07.00(Sun) on 870/6185kc, 10.00–10.15(W) on 870/7290/9610kc, 16.30–17.00 on 870/7290kc – **Arabic:** 16.00–16.15(D) on 870/6185/7290kc – **Swahili:** 04.30–05.00(W), 16.45–17.00 on 7290kc – **English:** 10.15(Sun 10.00)–11.00 on 870/7290/9610kc, 16.15–16.30 on 870/6185/7290kc.
N. in English: 10.15, 16.15.
INTERNATIONAL SCE: Arabic: To M. East: 15.10–15.50 on 17775 kc. **N:** 15.10 – **English:** To Europe: 18.10–18.30 on 11760kc. **N:** 18.25. To We. Africa: 20.10–20.30 on 15300kc. **N:** 20.25 – **French:** To Europe: 18.30–18.50 on 11760kc. **N:** 18.45. To We. Africa: 20.30–20.50 on 15300kc. **N:** 20.45.
ANN: E: "This is the Internal (or External) Service of R. Addis Ababa, the Voice of Ethiopia" – **F:** "Ici R. Addis Ababa la Voix de l'Ethiopie" – **Amharic:** "Yih ye Ethiopia Radio New" – **Somali:** "Halkani wa Addis Ababa Radio Ethiopia" – **Arabic:** "Huna Addis Ababa saut Ethiopia" – **Swahili:** "Hii ni idhaa ya kiswahili ya Radio Addis Ababa sauti ya Ethiopia" – **INT-SIG:**



V. by QSL-card. Re. in E, F or Amharic – **F.PL:** 1964: 100kW mw- and sw-tr. at Addis Ababa; 50kW mw-tr's at Asmara 100kW mw-tr. at Harrar; Addis-Ababa FM (1kW) – **PUB:** Radio Journal (quarterly).

RADIO VOICE OF THE GOSPEL (LUTHERAN WORLD FEDERATION BROADCASTING SERVICE) (Educational, Religious).
FI: by free will offerings by churches – **ADDR:** P.O. Box 654, Addis Ababa, Ethiopia. **Cable:** Lutherworld. **Te:** PBX 47190 – **L.P:** Dir. Gen. Dr. Sigurd Aske; Chmn. of the Board: Dr. F. A. Schiotz.
STATIONS: "R. Voice of the Gospel"; ETLF 2 tr's each 100kW.

kc	m	kc	m	kc	m	kc	m
4905	61.15	7120	42.13	9705	30.91	15270	19.65
5955	50.38	7185	41.75	9730	30.83	15410	19.47
6050	49.59	9555	31.40	15265	19.66		

Brown Boveri Switzerland: 2×100kW sw.-tr's.
Schedule (3/11–63 – 29/2–64) (alternative freq's in brackets).

Times	kc	Target areas	Languages
14.00–14.30	5955 (6050)	Ethiopia	Amharic
14.00–14.30	15410	So. India	**English**
14.30–15.00	5955 (6050)	Ethiopia	**English**
14.30–15.00	15410	So. India	*
15.00–15.30	7120 (7185)	Nearby areas	**English**
15.00–15.45	9755 (9730)	Madagascar	Malagasy
15.45–16.10	9705 (9555)	Ea. Africa	**English**
15.45–16.30	4905	Ethiopia	Amharic
16.10–17.00	9705 (9555)	Ea. Africa	Swahili
16.30–17.00	4905	Ethiopia	**English**
17.00–18.30	7120 (7185)	Near East	Arabic
17.00–18.00	9705 (9555)	Mid. East	Arabic
18.00–19.00	9705 (9555)	So. Africa	**
18.30–19.00	15270 (15265)	We. Africa	**English**
19.00–19.30	9705 (9555)	So. Africa	**English**
19.00–19.30	15270 (15265)	We. Africa	**English**

* Hindi (Mo, Fri) – Tamil (Sun, Thurs) – Telugu (Tues, Sat) – Music (Wed). ** Zulu (Tues, Thurs, Sat) – Sotho Afrikaans (Mo, Wed, Fri) – Zulu, Sotho (Sun 18.00–18.30), Nama, Herero, Ovambo (Sun 18.30–19.00).
ANN: "This is R. Voice of the Gospel, ETLF, Addis Ababa, Ethiopia" – **INT-SIG:** First four notes of "A Mighty Fortress" (three high and one low) on drums – **V.** by QSL-card. Records accepted – **PUB:** Newsletter (4 times a year).

GEORGE P. ADAIR ENGINEERING COMPANY
CONSULTING ENGINEERS
Radio - Television - Communications - Electronics
DOMESTIC AND INTERNATIONAL
ENGINEERING
SERVICES
FEderal 3-1116
Cable: GAENGCO
901-20th STREET N.W.
WASHINGTON 6, D.C.

GABON (Republic)

L.T: GMT+1 h – **Pr.L:** French.

RADIODIFFUSION TELEVISION GABONAISE (Go.)

FI: By Go. and by OCORA – **ADDR:** B.P. 150, Libreville. **Cable:** Radiogabon. **Te:** 2952 – **L.P:** Dir. Gen: G. Rawiri. Dir. Tec: Vassalo.

STATIONS (System TRT):

1313 kc 228.5 m 1 kW – 4777 kc 62.80 m 30 kW

1520 – 197.3 – 1 – – 7270 – 41.27 – 4 –

HOME SERVICE in French: Nat. Net: W 05.00–06.30 on 1520/4777kc, 10.30–13.30 on 1520/7270kc, 17.00–21.00(Sat 23.00) on 1520/4777kc. Sun 07.00–17.00 on 1520/7270kc, 18.00–21.00 on 1520/4777kc. N: 05.45, 11.45, 11.55, 17.20, 18.30, 20.55

Reg. Netw: D 19.00–21.00 on 1313kc – **L.L: English:** Tues 18.00, Fri 17.40 – **ANN:** "Radiodiff. Nationale émettant de Libreville et de Moanda" – **V.** by letter – **F.PL:** Reg. st's at Oyem, Port-Gentil – **PUB:** Prgr. schedule (weekly).

R. MOANDA-FRANCEVILLE (Go.)

ADDR: B.P. 150, Libreville – **L.P:** Dir. M. Rawiri – **STATION:** 6030kc 49.75m 4kW. Rel. of R. Nationale Gabonaise 68 h per week.

GAMBIA (British)

L.T: GMT – **Pr.L:** Mandinka, Wolloff, Fula, Jola.

RADIO GAMBIA (Go.)

ADDR: Bathurst – **L.P:** Inf. Officer. Capt. G. Peters, M.B.E. Broadc. Officer: A. M. Lowe. Dir. Tec: P. J. Warren.

STATION: 4820kc 62.24m 1kW.

HOME SCE. in English: Mo-Fri 18.00–20.00. **N:** 18.00 (BBC) – **V.** by letter.

GHANA

L.T: GMT – **Pr.L:** Akan, Ewe, Dagbani, Ga, Hausa, Nzema.

GHANA BROADCASTING CORPORATION (Go.)

FI: By subvention from Go. and revenue from wired broadc. – **ADDR:** Broadc. House, P.O. Box 1633, Accra. **Cable:** Broadcasts. **Te:** 77551 **L.P:** Dir. Gen: W. F. Coleman, M.B.E., B. Sc., M.I.E.E. Dir. of Eng: H. H. Walter, A.M.I.E.E. Dir. Nat. Serv: J. Ghartey. Dir. Common Sce's: E. G. K. Adjorlolo, BA, B. Sc., M. Sc.

STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW	kc	m	kW
3366	89.12	20	7295	41.12	10	11800	25.42	100	17910	16.75	100
4915	61.04	5	9545	31.43	100	15190	19.75	100	21545	13.92	100
6070	49.42	100	9640	31.12	10						

The Marconi Company Ltd. G.B: Four 100kW tr's (Tema); one 20kW two 10kW tr's (Accra).

HOME SCE: W: 05.30–08.00 on 3366/4915kc, 12.00–16.00 on 4915/7295/9640kc, 16.00–16.30 on 4915/7295kc, 16.30–18.15 on 3366/4915 7295kc, 18.15–22.20 (Sat 23.00) on 3366/4915kc. Sun 05.30–07.15 on 3366/4915kc, 07.15–08.00 on 3366/4915/7295kc, 08.00–12.00 on 4915/7295kc, 12.00–16.00 on 4915/7295/9640kc, 16.00–16.30 on 4915/7295 kc, 16.30–18.15 on 3366/4915/7295kc, 18.15–22.20 on 3366/4915kc. **N. English:** 06.00[1], 07.00[2], 13.00[2], 18.00[2], 20.00 (African), 21.00[1], 22.00[1], [1] Home N. [2] Internat. – **Ghana Languages:** 12.15, 16.30 – **Wrp:** 12.00–17.45.

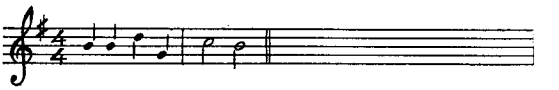
FOREIGN SERVICE: 4 tr's, 100kW each.

Areas: I=Sudan, Ethiopia, Somali, II=Angola, Mozambique, III=Ea. Africa, IV=S., SW. & SE. Africa, V=We. Africa, VI=U.A.R., Sudan, VII=Port. Guinea, VIII=Congo, C. Africa, Madagascar, IX=Ea. Africa & N.E. Congo, X=U.K. Europe, XI=No. Africa.

Arabic	kc	Area		kc	Area
15.45–16.30	21545	VI	17.45–18.30	6070	V
20.05–20.50	11800	XI	19.15–20.00	11800	VIII
English			19.15–20.00	6070/9545	V
14.00–14.45	15190	I	20.45–21.30	6070/9545	V
14.45–15.30	17910	III	**Hausa**		
14.45–15.30	21545	IV	15.45–16.30	6070	V
14.45–15.30	6070	V	18.30–19.15	6070/9545	V
16.30–17.15	17910	VIII	**Portuguese**		
17.00–17.45	6070	V	14.00–14.45	21545	II
18.30–19.15	11800	I	16.45–17.30	21545	II
20.00–20.45	9545	IV	16.45–17.30	11800	II+VII
20.00–20.45	6070	V	**Swahili**		
20.50–21.35	11800	X	14.00–14.45	17910	III
21.30–22.15	6070/9545	V	15.45–16.30	17910	III
French			17.15–18.00	17910	III
17.45–18.30	11800	VIII			

N. in English: 14.00, 14.45, 17.00, 20.00, 20.50, 21.30 – **Here in Ghana:** Tues 14.35, 15.15, Sun 18.50 – **For Freedom Fighters:** Sun 14.35, 15.15, 22.00, Mo 21.25, Wed 15.15, 17.35, Sat 22.00.

ANN: "This is the Nat. Sce. of the Ghana Broadc. Corpo." preceded by drumming or "This is R. Ghana" – **INT-SIG:** Guitar:



V. by QSL-card and letter. Rc. on technical matters to Propagation Eng, on prgr.'s to Contr. of Prgr's (External). Records accepted – **F.PL:** Six 10kW sw. tr's and two 250kW sw.-tr's at Ejura for Nat. and External Sce. respectively – **PUB:** "Radio Review & TV Times" (weekly). External Sce. sched. (monthly).

GUINEA (Rep.)

L.T: GMT – **Pr.L:** French, Vernaculars.

RADIODIFFUSION NATIONALE (Go.)

ADDR: B.P. 617, Conakry. **Cable:** Radio Guinée. **Te:** 3366 – **L.P:** Dir: E. Tompapa. Dir. of Prgr. & External Relations: E. Katty. Dir. Tec: L. Faoro-Cebo. Chief of High Frequencies: J. Daffé. Chief of low Frequencies: J. L. Sene.

STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW	kc	m	kW
1403	213.8	4	3385	88.63	50	6155	48.74	18	9650	31.09	50
3376*	88.89	50	4910*	61.10	18	7125*	42.11	18	11965*	25.07	50

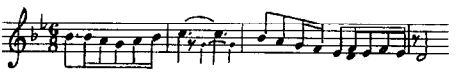
* not in use during rain season (June-October).

HOME SCE. in French, National languages, English, Creole-English, Arabic, Portuguese, Creole-Portuguese, Ouolof, Bambara, Mandjake: W 06.00–08.00, 12.30–13.30, 16.00–24.00. Sun 08.00–14.00, 16.00–24.00 On 1403/4910kc; as above. On 3385kc. D 16.00–24.00. On 6155kc: W 12.30–13.30, Sun 08.00–14.00. On 9650kc: W 06.00–08.00, D 16.00–24.00.

N: French 07.00(W), 09.15(Sun), 12.45, 17.00(W), 20.00, 23.30(Mo-Fri). **Portuguese:** Sun 12.00. **Creole Portuguese:** Sun 12.25. **Mandjake:** Sun 12.35. **Ouolof:** Sun 18.40. **Bambara:** Sun 19.10. **Arabic:** Sun 19.40, Fri 21.30. **English:** D 20.30–20.40. **Creole-English:** Sat 16.20.

ANN: F: "Ici la Voix de la Revolution (before news)" or "Ici Conakry, Radiodiff. Nationale" or "Ici Conakry Radiodiff. de la Republique de Guinee". E: "Here is the Voice of the Revolution".

INT-SIG: First movement of the popular heroic song "Alpha Yaya" (first movement of Guinean National Anthem) on Guitar:



V. by letter – **F.PL:** Reg. st's at Sonfonia & Tombo.

GUINEA (Portuguese)

L.T: GMT+1 h – **Pr.L:** Portuguese.

EMISSORA DA GUINE (Go.)

AD: 15 min. a day – **ADDR:** Emissora da Guiné, Bissau.

STATION: 1050kc p.5kW – 5041kc 59.50m 10kW.

Continental Electronics USA: 1kW, 10kW sw-tr's.

HOME SCE: 13.00–14.00(Sun only), 19.00–23.00 – **N:** 20.00, 22.00.

ANN: "Aqui Bissau, Emissora da Guiné Portuguesa" – **V.** by QSL-card.

GUINEA (Spanish)

L.T: GMT÷1 h – **Pr.L:** Spanish.

EMISORA DE RADIODIFUSION SANTA ISABEL (Go.)

ADDR: Apt. 195, Santa Isabel, Fernando Poo – **L.P:** Dir: M. Barbera.

STATIONS: 6250kc 48.00m 5kW – 6345kc 47.28m 1.6kW – 7160kc 41.90m 0.5kW – **HOME SCE: N: Spanish:** 07.00 (W), 13.00 (Sun), 13.20 (W), 20.30 (W). **Pamue:** 17.00–18.00. **Bubi:** 18.00–18.30. **Annobonesa:** Sat 18.30–19.30. **Ibo:** Thurs 18.30–19.00. **Effic:** Tues 18.30–19.00. **Calabar:** Mo, Fri 18.30–19.00.

ANN: "Aquí Emisora de Radiodifusión de Santa Isabel de Fernando Poo" – **INT-SIG:** "Los Voluntarios". Close down: Spanish National hymn – **V.** by letter.

RADIO ECUATORIAL (Go, Comm.)

ADDR: Apt. 57, Bata, Provincia de Rio Muni. **Cable:** R. Bata. **Te:** 182 – **L.P:** Dir: E. E. Navarro Mánez.

STATION: EAJ 206. 4926kc 60.90m 5kW.

HOME SCE: 11.00–15.00, 17.00–23.00(Sat 00.30).

N: 12.00, 13.00, 19.30, (Pamue) 19.00, 20.45.

ANN: "Transmite R. Ecuatorial Bata EAJ 206 La Voz de Rio Muni" **V.** by QSL-card.

IVORY COAST (Republic)

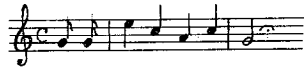
L.T: GMT – **Pr.L:** French, Vernaculars, English.

RADIO ABIDJAN (Go.)

FI: 50% by the Ivory Coast Co. and 50% by the French Go – **AD:** 1% of all prgr's – **ADDR:** Radiodiffusion de la Cote d'Ivoire, B.P.

2261, Abidjan. **Cable:** Radiocotivoire. **Te:** 3514 – **L.P:** Dir: E. Kouame. Dir. Tec: L. Diallo.
STATIONS:
National Network: 1240kc 242m 1kW – 4940kc 60.73m 10kW.
International Network: 1493kc 201m 4kW – 7215kc 41.58m 25kW – 11820kc 25.38m 100kW.
HOME SCE. in French, Mossi, Sénoufo, Dioula, Ebrié, Beté, Baoulé, Dida, English:
National Network: 1240, 4940kc: W 06.30–07.30(Thurs 08.00), 12.15–13.30, 17.30–22.30(Sat 12.15–23.30), Sun 07.15–22.30.
N: French: 06.45(W), 07.30(Sun), 12.45, 19.00, 20.00, 22.25 (exc. Sat), 22.55(Sat). **Vernaculars:** 17.45–18.45 – **L.L: English:** Mo-Fri 19.30.
International Network: W 06.30–08.00, 12.15–13.30, 18.00–24.00. Sun 07.15–08.15, 18.00–24.00 – **N: French:** 07.15(W), 12.45*, 20.00*, 23.55 (* rel. Nat. Net). **English:** W 18.30–19.00.
ANN: "Ici Abidjan, Radiodiff. de la Cote d'Ivoire émettant sur..." – **V.** by QSL-card. Records accepted – **F.PL:** Relay st's – **PUB:** Prgr. sched. (weekly).

INT.-SIG.:



KENYA

L.T: GMT+3 h – **Pr.L:** English, Swahili, Hindustani.
KENYA BROADCASTING CORPORATION (Indep.)
FI: by license adv. and Go. subvention – **AD:** Spot and sponsored prgr's at various times – **ADDR:** Box 30456, Nairobi. **Cable:** Broadcasts. **Te:** 27081 – **L.P:** Dir: G. M. Cahan. Dir. Tec: R. J. Davey. Dir. Prgr: A. M. Dean.
HOME SERVICES
English Service (Nairobi): W 03.15–06.25, 09.15–11.15, 13.00–20.01. Sat 03.15–21.00. Sun 04.00–20.00.
863 kc 347.5 m 10 kW: **FM:** 95.1Mc 1kW: As above.
4885 – 61.41 – 10 – : W 03.05–06.25, 13.00–20.01. Sat 03.15–06.15, 12.15–21.00. Sun 04.00–06.15, 12.45–20.01.
7240 – 41.44 – 10 – : W 09.15–11.15, Sat 06.30–12.00. Sun 06.30–12.30.
N: 04.00*, 06.00*, 10.15, 11.00, 16.10 (Sat 16.00, Sun 17.00) 18.00*, 18.10(W) – *=BBC.
Swahili Service (Nairobi): W 03.00–05.00, 10.00–11.00, 14.30–20.00. Sat 03.00–05.00, 10.00–20.00. Sun 04.00–20.00.
750 kc 400 m 10 kW and FM: 92.9Mc 1kW: As above.
4934 – 60.80 – 10 – : W 03.00–05.00, (Sun 04.00–06.00) 14.30–20.00.
7210 – 41.61 – 10 – : W 10.00–11.00 (Sat 14.15) Sun 06.15–14.15.
N. in English: D 18.00 (B.B.C.).
Hindustani Service (Nairobi): W 03.15–05.00, 09.30–11.00, 14.30–20.00, Sat 03.15–05.00, 09.30–20.00. Sun 05.00–19.30.
683 kc 439.2 m 5 kW: As above.
4855 – 61.79 – 5 – : W 03.15–05.00, 14.30 (Sat 13.15)–20.00 Sun 13.15–19.30.
7125 – 42.11 – 5 – : W 09.30–11.00 (Sat 13.00) Sun 05.00–13.00.
N: in English: D 16.00, 18.00 B.B.C. relays).
Nairobi Station: D 09.15–10.30, 13.15–19.30.
1268 kc 236.6 m 5 kW: as above – 4950 kc 60.66 m 5 kW: D 13.15–19.30.
7150 – 41.96 – 5 – : D 09.15–10.30.
Mombasa Station: 791kc 20kW (Studios in Nairobi, tr. in Mombasa) W 03.30–04.45, 10.00–11.00, 14.00 (Sat 13.30–)20.30. Sun 06.15–11.00, 14.00–20.30.
Kisumu Station: (Studios in Nairobi, tr's in Kisumu).
W 03.30–04.45, 10.00–11.00, 13.30–19.30. Sun 10.00–19.30.
953 kc 314.6 m 5 kW: as above.
4804 – 62.44 – 5 – : W 03.30–04.45, 13.30–19.30. Sun 13.15–19.30.
7290 – 41.15 – 5 – : W 10.00–11.00. Sun 10.00–13.00.
AKG, Austria, delivered studio equipments (recorders, microphones). **The Marconi Company Ltd, G.B,** delivered 2×2kW and 4×10kW tr's (Nairobi), antennas, studio equipment.
ANN: All tr's are regulary identified by the words "Kenya Broadc. Corporation" preceded by the appropriated nat. or reg. service identity – **INT.-SIG.:** Sound of African birds – **V.** by letter. Re to Chief Engineer. Records accepted.

FORCES BROADCASTING STATION (British Forces)
ADDR: B.F.P.O. 10, Nairobi. **Te:** 55232.
STATIONS: 1448kc 207m 1kW.
HOME SCE. in English: W 03.00–05.45, 09.30–20.00(Sat 21.00) Sun 04.00–20.00 (Entertainment and BBC-rel. for British Troops in Kenya).
N: 04.00, 05.00, 10.00, 16.00 (Sun), 18.00, 20.00 (exc. Sat).
ANN: "This is the Forces Broadc. Service East Africa".

INT-SIG:

V. by QSL-card or letter. Rp.

LIBERIA (Rep. of)

L.T: GMT÷¾ h – **Pr.L:** English, Liberian-Vernaculars.
LIBERIAN BROADCASTING CORPORATION (Go.)
FI: By adv – **AD:** all day 7 days a week – **ADDR:** P.O. Box 594, Monrovia. **Cable:** Broadcasts. **Te:** 649 – **L.P:** Gen. Mgr: H. Chambers. Eng. in-Charge: H. W. Akester. M.B.E.
STATIONS: 650kc 461.5m 10kW – 3255kc 92.15m 10kW – 4090kc 73.35m 10kW – **HOME SCE:** 06.15–08.45, 17.45–00.50 on 650/3255kc. 08.45–17.45 on 650/4090kc. **N. English:** 07.00, 08.45, 16.00, 20.00, 21.45 – **N. in African dialects:** 16.10. **African N. in English:** 20.10.
ANN: "This is st. ELBC Monrovia" or "This is the Liberian Broadc. Corpo., Monrovia". – **V.** by QSL-card.

RADIO STATION ELWA (Non-comm, Cultural Missionary Broadcast. Sce. of the Sudan Interior Mission)
FI: Entirely by voluntary gifts of Christian people – **ADDR:** Box 192, Monrovia. **Cable:** Evangel – **L.P:** Gen. Mgr: Rev: R. G. de la Haye. St. Mgr: Rev: Dick Reed. Dir. Prgr: J. Pelley. Dir. Tec: H. Ries. Dir. French Dept: M. Weber. Dir. African Languages: Rev: W. H. Thompson.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
710	422.0	1	4770	62.89	10	15155	19.80	50
3225	93.05	10	11975	25.05	10/50	21535	13.93	0.5

Gates Radio Company, USA: One 10kW, one 50kW sw-tr.
HOME SERVICE:
W: 06.12–09.30 on 710/4770kc, 12.42–22.45 on 710/3225kc. Sun: 06.12–23.15 on 710/4770kc – **English:** On 710/4770kc: W: 06.12–09.30, 12.42–22.45. Sun: 08.15–22.15 – **N:** 07.00, 09.15, 13.00, 16.00, 18.00, 20.00, 20.45 – **Liberian Languages:** On 3225kc: W: 06.00–09.30, 16.45–18.00. Sun: 07.00–11.00. **West African Sce.** on 4770kc: W: 06.12–09.30, 19.00–22.15. Sun: 07.00–13.15, 19.45–23.15 – **English:** W: 06.12–09.30, 19.45–21.00. Sun: 08.15–13.15, 19.45–20.45, 21.45–23.15.
FOREIGN SERVICE:
To Nigeria: W: 04.57–08.00, 10.57–18.30 on 11975kc. Sun: 04.57–19.30 on 11975kc – **English:** 06.00, 10.00(Sun), 11.00(W), 16.30. **N:** 06.00, 11.00(W), 17.15(W) – **French:** 05.00, 08.00(Sun), 12.00(W) – **L.L:** (English): Thurs 05.45 – **Mbg:** Sun 09.45.
To Congo: W: 15.12–18.00. Sun: 14.27–18.00 on 15155/21535kc – **English:** 14.30(Sun), 15.15(W). **French:** 17.00. **L.L.** (English): Tues 17.30. **Congo Languages:** 15.30(Sun), 15.45(W).
To Near East: D 18.09–19.30 on 15155/21535kc. **English:** 18.10, 19.00. **Arabic:** 18.15(Sun), 18.30(W). **Greek:** 19.15(W).
To North Africa: 19.33–21.30(Sun 21.45) on 15155/21535kc. **English:** 21.00(W), 21.15(Sun). **French:** 19.34. **L.L.** (English): Mo 20.00. **Arabic:** 20.30. **Spanish:** 20.15(Mo–Wed). **Italian:** 20.15(Thurs–Sat).
To South America in Portuguese: W: 21.57–22.45 on 15155/21535kc.
No. American transmission: Cancelled temporarily.
ANN: Home Sce: "This is ELWAR. Village, broadc. from Monrovia, Liberia". **Foreign Sce:** "This is ELWA R.Village broadc. from Monrovia, Liberia". **French:** "Ici ELWA R.Village, Monrovia, Liberia".
INT-SIG: Sign on Music for all freq's: Orchestral version of hymn "What a Friend We Have in Jesus" – **V.** by QSL-card. **Rp.** appreciated. Re. in E or F. Records accepted – **PUB:** R. News Bulletin quarterly.

RADIO BOLAHUN (Rlg.)
ADDR: Holy Cross Mission, Kailahun. **L.P:** Dir. Gen: Father Prior S. J. Atkinson, O.E.C. Dir. Tec: E. C. Cone.
STATIONS: ELHC 0.5kW: 3240kc 92.59m – 4800kc 62.50m.
HOME SCE. in English, French, Vernaculars: 19.45–22.15 – **English:** Mo-Fri 19.45–20.15, 20.45–22.15, Sat/Sun 19.45–22.15. **N:** 20.00, 21.00 – **Native Languages:** Mo-Fri 20.15–20.45 – **ANN:** "This is st. ELHC, the radio voice of Holy Cross Mission, broadc. from Bolahun, Liberia" or "You are listening to ELHC, the radio voice of Holy Cross Mission, at 3240kc in the 90m.b. and 4800kc in the 60m.b, from Bolahun, Liberia" – **V.** by letter. Re. welcomed from other areas than Liberia, Sierra Leone, Guinea – **PUB:** Prgr. pamphlets from time to time.

VOICE OF AMERICA RADIO STATION IN LIBERIA
ADDR: Voice of America, Washington 25, D.C, USA.
Short Wave: Monrovia 50kW.

kc	m	kc	m	kc	m	kc	m
3965	75.67	7195	41.70	9720	30.86	15350	19.54
6035	49.71	7235	41.47	11770	25.49	17870	16.79
6075	49.38	9645	31.10	15315	19.59		

D.PRGR: English: 03.00–07.30, 14.00–14.30, 15.00–17.00, 17.30–19.30, 20.00–21.30, 22.00–22.30. **French:** 17.00–17.30, 19.30–20.00, 21.30–22.00. **Swahili:** 03.00–03.30, 14.30–15.00 – **ANN:** "You are listening to the Voice of America from Monrovia".

LIBYA (Kingdom of)

L.T: GMT+2 h – **Pr.L:** Arabic.
LIBYAN BROADCASTING SERVICE (Go.)
see advertisement on page 139.

★ LIBYA ★

L.T.: GMT +2h. — **Pr.L.: Arabia Po.:** 1.500.000 — **Revrs.:** 40.000 — **EC:** 125/130/220 V., A.C.50 c/s.

LIBYAN BROADCASTING SERVICE (Go.)

FI.: By Ministry of Information and Guidance. Addr.: P.O. Box 333 Tripoli. P.O. Box 274, Benghazi, Cable: Idaalibya. Tel. 1090 (Tripoli), 3000 (Benghazi).

LP.: Under Secr., Ministry of Information and Guidance: R. El Masri. Dir. of Broadc.: S. Shanta. Prgr. Consultant: O. Ali. Tech. Supervisor: M. Arcbi.

Stations:	Kc/s	m	kW	Stations:	Kc/s	m	kW
Tripoli	1052	285.1	50	Benghazi	3305	90.77	7.5
Benghazi	1484	222.2	10	Tripoli	6140	48.86	1

HOME SERVICE IN ARABIC: 04.45—07.00, 12.00—22.15 (Fri. 04.45—22.15). **N.:** 05.30, 06.55, 13.00, 15.30, 17.30, 18.15, 19.30, 21.00, 21.55.

ANN. Hunna Al Idaa Allibia Min Tarablus (In case of Broadcasting From Tripoli) or Hunna Al Idaa Allibia Min Benghazi (In case of Broadcasting from Benghazi). Int.-Sig.: Programmes open and close with National Anthem. — **V.** by QSL-Card or letter. **F. PL.:** Tripoli and Baida 100 kW at the beginning of 1964, English, French and Italian Programmes.

FORCES BROADCASTING SERVICE (British Forces)
ADDR: No. 1 Forces Broadc. St. B.F.P.O. 57, Tripoli. **Te:** 2179 – **L.P:** St. Commander: R. L. Angove MBE, ALCM. Prgr. Officer: K. J. O. Doherty.
STATION: 1394kc 215m 1kW – 93.1Mc 20kW – **D.PRGR: English:** W 04.30–06.30, 10.30–21.00(Sat 22.00) Sun 05.00–21.00. **N:** rel. of BBC, G.O.S.
ANN: This is the Forces Broadc. Sce. Tripoli – **V.** by QSL-card. Rp.

FORCES BROADCASTING SERVICE, BENGHAZI.
ADDR: B.F.P.O. 55, Benghazi – **L.P:** St. Commander: D. G. Phillips. Techn. Officer: N. Joyce. Prgr. Organiser: R. Kennedy.
STATION: 97.8Mc 4kW (ERP).
D.PRGR. in English: W 04.30–06.15, 16.00–21.00(Sat 22.00). Sun 06.00–21.00.
ANN: "This is the Forces Broadc. Sce, Benghazi" – **V.** by QSL-card.
F.PL: New st. at El Adem/Tobruk.

ARMED FORCES RADIO/TV SCE: see USA.

MADEIRA ISLANDS (Portuguese)

L.T: GMT+1 h (Su. GMT) – **Pr.L:** Portuguese.
R. EMISSORA DA MADEIRA (Pr.)
ADDR: Funchal. **Te:** 21883 – **L.P:** St. Dir: M. Portela Ribeiro.
STATION: CBS90 1484kc 202m 1kW.
HOME SCE: W 14.00–19.00, 20.30–00.30, Sun 11.00–00.30.
ANN: "Aqui R. Emissora da Madeira CSB90, a trabalhar no picodas Barcelos Funchal".

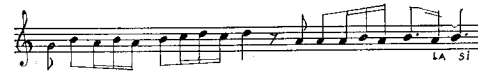
RADIODIFUSAO DE FUNCHAL (Pr.)
CSB91 1594kc 188.2m 0.3kW: W 13.30–17.00, 21.00–02.00. Sun 11.30–13.30, 15.00–02.00.

MALAGASY REPUBLIC

L.T: GMT+3 h – **Pr.L:** Malgache, French.
RADIODIFFUSION NATIONALE MALGACHE (Go.)
ADDR: B.P. 442. Tananarive. **Cable:** R. Madagascar. **Te:** 4745. **L.P:** Dir: R. Rabesahala. Tech. Counsellor: R. Leruste. Dir. Tec: B. Rakotoarivelo. Dir. Nat. Net. I: Andriamamonjy. Dir. Nat. Net. II: J. Rafidinarivo.
STATIONS: (System: TRT+CFTH)

kc	m	kW	Net.	kc	m	kW	Net.	kc	m	kW	Net.
1394	215.2	1	I	3288	91.24	4	II	7155	41.92	4	I
1502	199.7	1	II	6135	48.90	4	I	7280	41.21	4	II
3232	98.82	4	I	6170	48.62	4	II				

HOME SCE: Nat. Net. I (Malgache): W 03.30–05.15, 08.00–10.30, 14.00–19.30. Sat 03.30–20.00. Sun 04.00–19.30.
1394kc: as above; 3232kc: 03.30–05.30 (Sun 04.00–05.15), 15.00 (Sat/Sun 13.58)–19.30 (Sat 21.00); 7155kc: 08.00–11.00 (Sat 08.00, Sun 05.30–13.58). 6135kc: as above.
N: W 03.40, 04.15, 09.30, 16.15, 18.30; Sun 05.15, 09.30, 18.30.
T.S: 03.30, 09.30, 16.00.
Nat. Net. II (French): W 03.30–05.15, 09.00–11.00, 15.00–19.30. Sat 03.30–21.00. Sun 04.00–19.30. 1502/6170kc: as above. 3288kc: 03.00–05.15 (Sat 06.00), 13.58–19.30 (Sat 21.00); 7280kc: 08.00–11.00 (Sat/Sun 06.00–13.58).
N: Mo-Fri: 03.45, 04.45, 09.00, 09.30, 10.30, 15.13, 16.30, 19.15. Sat: 03.45, 04.45, 06.30, 08.00, 09.00, 10.30, 13.00, 15.00, 20.55. Sun 04.45, 06.35, 08.00, 16.30.
L.L. (English): Mo, Thurs 15.30.
ANN: Malgache: "Antananarivo ity! antoko volohary". **F:** "Ici Tananarive – Radiodiff. Nationale Malgache". **INT-SIG:** "O... Raketaka" played on "Valiha" (typical Malgache instrument consisting of bamboo the detached fibres of which are used as strings).



V. by QSL-card. Records accepted. **F.PL:** Two 4kW mw-tr's, two 30kW sw-tr's, one 100kW sw-tr. directed to We. Africa, Europe by the end of 1964 – **PUB:** Prgr. schedule (quarterly).

MALI (Republic of)

L.T: GMT – **Pr.L:** French, English, Vernaculars.
RADIO MALI (Go.)
ADDR: B.P. 171, Bamako. **Cable:** Radio Mali. **Te:** 2474 – **L.P:** Dir: M. Racine Kane. Dir. Tec: M. Keita.
STATIONS: (System CFTH).
1430 kc 210.0 m 1 kW – 4835 kc 62.05 m 4 kW
7145 – 41.99 – 50 – – 9745 – 30.80 – 4 –
HOME SERVICE in French, English, Bambara, Sonraie, Peul, Sarakolé, Ouloff, Tamachek, Maure: W 06.00–08.00 on 1430, 4835, 7145kc 12.00–14.00 on 1430, 9745kc 18.00–23.00 on 1430, 4835, 7145kc – Sun 08.00–17.30 on 1430, 9745kc 18.30–23.00 on 1430, 4835, 7145kc – **N: French:** 07.00(W), 09.00(Sun), 12.45, 20.15, 22.30. **English:** 13.00, 20.45. **Vernaculars:** D 12.30, 13.15, W 18.45, 19.00, 19.15, 19.25, 19.35.
ANN: F: "Ici Bamako, Radiodiff. Nationale de la Republique du Mali émettant sur..." – **INT-SIG:** African Music on local instrument "Cora" – **V.** by letter – **F.PL:** Two 150kW sw-tr's, two 100kW mw-tr's +tr's for the tropical bands.

MAURITANIA (Republic)

L.T: GMT – **Pr.L:** French, Arabic, Maure, Saracolé, Toucouleur, Ouoloff.
RADIO MAURITANIA (Go.)
ADDR: B.P. 200, Nouakchott. **Te:** 2164 – **L.P:** Dir: A. O. Sidya.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
1349	222.4	1	4855	61.79	4	7245	41.41	4
3222	93.11	30	6035	49.71	30	9610	31.22	30

HOME SCE: W: 06.30–08.00, 12.00–15.00, 18.00–22.30(Sat 23.30). Sun: 07.30–23.00 – **N: French:** 07.15(W), 10.00(Sun), 12.45, 20.00. **Arabic:** 07.10(W), 07.35(Sun), 13.00, 20.30. **Ouolof:** 12.00, 18.00. **Toucouleur:** 12.30, 18.30. **Sarakolé:** 12.15, 19.00.
ANN: F: "Ici Nouakchott, Radiodiff. de la République Islamique de Mauritanie – **INT-SIG:** Mauritanian guitar – **V.** by letter. Re. in F, Arabic.

MAURITIUS (British)

L.T: GMT+4 h – **Pr.L:** English, French, Hindustani, Chinese.
MAURITIUS BROADCASTING SERVICE (Go.)
ADDR: Malherbes Transmitter Bldg, Forest Side. **Te:** Curepipe 507 **Cable:** Broadcast. – **L.P:** Mgr: L. C. de Chazal.
STATIONS: 10kW 683kc 439m – 4850kc 61.86m – 9710kc 30.90m. **The Marconi Company Ltd. G.B.:** delivered 10kW tr, ant, studio equip.
HOME AND DEPENDENCIES: W 02.30–04.15, 08.00–09.30, 12.30–18.15, Sun 02.30–18.16.
683kc as above; 4850kc: 12.00–18.15; 9710kc: 02.30–12.00.
English/French: W 03.00–04.15, 08.00–09.30, 14.30–18.15. Sun 03.00–08.45, 14.30–18.15. **N: French:** 03.30, 08.30, 15.00, 17.30. **English:** 04.00, 18.00. **Wrp:** 03.40, 15.10(F), 04.10 (E). **Hindustani:** W 02.30–03.00, 12.30–14.30. Sun 10.00–14.30. **N:** 02.45, 14.15. **Chinese:** Sun 08.45–10.00, Tues, Thurs 09.30–10.15. **Mbg** (for Mauritians Overseas): Sun 06.20.
ANN: E: "This is the Mauritius Broadcasting Service". **F:** "Ici le M.B.S. poste de radiodiffusion de l'Ile Maurice".

MOROCCO (Kingdom of)

L.T: GMT – **Pr.L:** Arabic, French, Spanish, English, Berber.

RADIODIFFUSION TELEVISION MAROCAINE (Go.)
ADDR: I, Zenkat, Pierre Parent, Rabat – **L.P:** Dir. Gen: M. Ben Abdallah, Chief Eng: M. Drissi.

HOME SCE:
First Net. (Chaine A): **Arabic:** W exc. Fri 06.30–09.30, 12.00–16.00, 18.00–24.00, Fri 06.30–16.30, 18.00–24.00. Sun 06.30–24.00.

	kc	m	kW		kc	m	kW
Oujda	593	506	100	Safi	1025	293	1
Sebaa Aioun	611	491	140	Tetuan	1052	293	20
Casablanca	818	367	1	Tanger	1115	269	10
Rabat	917	327	1	Tanger	1232	244	50
Agadir	935	321	100	Sebaa-Aioun	7115	42.18	10
Marrakech	971	309	1		15345	19.55	50

FM: Rabat 92Mc, 0.35kW, Sebaa-Aioun 94.5Mc, 1kW, Casablanca 96Mc, 0.25kW.
Second Net: (Chaine B): French, Spanish, English: W 07.00–09.00, 12.00–14.00, 18.00–24.00. Sun 07.30–23.00.

	kc	m	kW		kc	m	kW
Sebaa-Aioun	710	428	140	Marrakech	1151	261	1
Oujda	827	263	1	Casablanca	1187	253	1
Tanger	1016	295	1	Safi	1322	227	1
Rabat	1025	293	1	Sebaa-Aioun	7225	41.52	10

FM: Rabat 88Mc 0.35kW – Casablanca 90Mc 0.25kW – Sebaa-Aioun 96.8Mc 0.25kW.
French: W 07.00–08.30, 12.30–14.00, 18.30–23.00. Sun 07.30–10.00, 11.00–14.00, 15.00–23.00. **Spanish:** W 08.30–09.00, 23.00–24.00. Sun 10.00–11.00, 14.00–15.00. **English:** 12.00–12.30, 18.00–18.30.
Third Network (Chaine C): Berber: 12.00–14.00, 17.00–22.00.

	kc	m	kW		kc	m	kW
Tetuan	827	363	5	Rabat	1295	232	0.25
Sebaa-Aioun	1043	288	25	Casablanca	1484	202	0.25

Brown Boveri, Switzerland: delivered 2×50kW mw-tr's (Agadir).
The Marconi Company Ltd, G.B, delivered mw-tr. (Tetuan) 20kW.

FOREIGN SERVICE
Arabic to South and N. East: 06.30–09.30, 12.00–16.00, 18.00–24.00 on 6190/9505/15345kc.
Arabic special prgr. to East: Tangier 15185kc 19.76m 100kW: 19.00–20.30.
Arabic, French, English to South: Tangier 11735kc 25.52m 50kW 12.30 Arabic, 18.00 English, 18.30–20.30 **"Voix de la Mauritanie"** in Arabic & Mauritanian dialect, 20.30–22.30 **"Bonsoir l'Afrique"** in French, English, Ouolof.
VOICE OF MOROCCO: Tangier 1232kc 243.5m 50kW.
09.00–14.00 Arabic, 14.00–16.00 Spanish, 16.00–19.00 Arabic, 19.00–21.00 French, 21.00–01.00 Arabic.
ANN: F: "Ici Rabat Radiodiff. Télévision Marocaine" – E: "This is the Morroccan Broadc. and Television System Rabat" – Sp: "Aqui Radiodif. Televisión Maroqui" – Voice of Morocco: F: "Ici Tanger, la voix du Maroc" – **V.** by QSL-card. Records accepted – **PUB:** Monthly magazine in Arabic – **F.PL:** "Maroc Central" (2×300kW) under constr. at Beni Mellal.

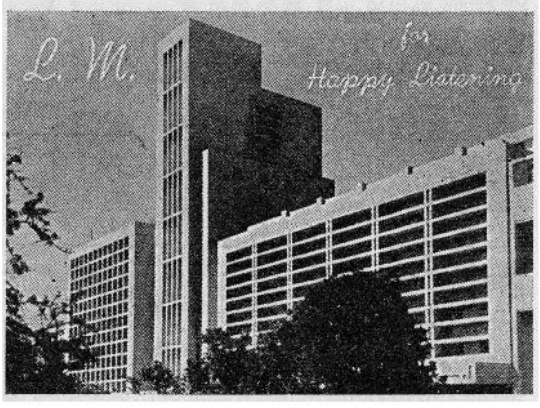
VOICE OF AMERICA RADIO STATION IN TANGIER
ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS: Tangier 35/50/100kW: 02.00–08.00, 12.00–23.00.

kc	m	kc	m	kc	m	kc	m
5955	50.38	7110	42.19	9760	30.74	15135	19.82
6040	49.67	7125	42.11	11720	25.60	15150	19.80
6080	49.34	7200	41.67	11740	25.55	15290	19.62
6115	49.06	7255	41.35	11830	25.36	17705	16.94
6120	49.02	7270	41.27	11870	25.27	17750	16.94
6140	48.86	9520	31.51	11875	25.26	17855	16.80
6170	48.62	9525	31.50	11910	25.19	21455	13.98
6180	48.54	9610	31.22	15115	19.85	21695	13.83
7105	42.22	9740	30.80				

D.PRGR: Short Wave: See USA.
ANN: "This is the Voice of America Relay St. at Tangier" – **INT-SIG:** Choir of brass playing a 10 note version of "Columbia, the Gem of the Ocean". See USA – **V.** by QSL-card.

MOZAMBIQUE (Port. East Africa)

L.T.: GMT+2h – **Pr.L:** Portuguese, English, Local dialects, Afrikaans.
RADIO CLUBE DE MOZAMBIQUE (Non-profit organization)
FI: By state, licenses, adv – **AD:** Portuguese: 04.30–12.00, 15.45–22.00; English: 03.30–23.00.
ADDR: P.O. Box 594, Lourenço Marques. **Cable:** Radioclube. **Te:** 4045 – **L.P:** Dir. Gen: Capt. A. dos Santos Figueiredo, Exec. Dir: H. A. da Silva Rodrigues. Dir. Tec: V. Rodrigues. Chief Portuguese Section: J. Mendonça. Chief English Section: D. Davies.
STATIONS: 15 tr's from 5 to 100kW.
Brown Boveri, Switzerland: mw+sw-tr. (Matola) 100kW.
"A" PRGR. in Portuguese: W: 04.30–12.00, 15.30–21.00. Sat: 04.30–21.00. Sun: 05.15–21.00.
737kc 407m 4925kc 60.90m 7210kc 41.61m 11835kc 25.35m
3260 – 92.02 – 6115 – 49.06 – **FM:** 98Mc



05.30–07.00 on 4835/6050 kc
07.00–16.00 on 6050/7250/11760 kc
16.00–17.00 on 4835/6050/11760 kc
17.00–19.00 on 917/4835/11760 kc
19.00–23.00 on 917/3215/ 4835 kc
23.00–01.00 on 917/3215 kc

These are your

Lourenco Marques Radio

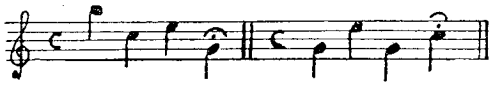
Wavebands for happy listening

All times indicated are local – (less two hours for GMT.)

LOURENÇO MARQUES *For Happy Listening*

For full information see page 141

W 04.30–06.00* on 737/4925/6115/7210kc, 06.00–12.00(Sun 15.30)*, 15.30–17.30 on 737/6115/7210/11835kc, 17.30–19.00 & 19.00–21.00* on 737/3260/4925/6115kc. Sun: 05.15–13.00* & 13.00–17.30 on 737/6115/7210/11835kc, 17.30–19.00 & 19.00–21.00* on 737/3260/4925/6115kc. * also on FM.
N: 05.35, 10.30, 17.30, 20.30 – **Rel:** Sun: 07.00, 18.00 – **Wrp:** 10.30, 16.30 – **L.L. (English):** Tues 11.20, Fri 16.00.
ANN: On the h: 4 notes on gong followed by "Aqui Portugal Moçambique fala-vos o Radio Clube em Lourenço Marques transmitindo en ondas curtas e medias" – **INT-SIG:** Gong – V. by QSL-card.
"B" PRGR. in English, Afrikaans: D 03.00–23.00.
917kc 327m 4835kc 62.05m 7250kc 41.38m 11760kc 25.51m
3215– 93.30– 6050– 49.59–
03.30–05.00 on 4835/6050kc, 05.00–14.00 on 6050/7250/11760kc, 14.00–15.00 on 4835/6050/11760kc, 15.00–17.00 on 917/4835/11760kc, 17.00–21.00 on 917/3215/4835kc, 21.00–23.00 on 917/3215kc.
Rel. Prgrs: W: 19.30–21.00. Sun: 04.30–05.00, 19.30–21.15 on 3300kc 90.85m, 4860kc 61.73m.
ANN: Every quarter-hour and half-hour 4 notes on gong followed by: "This is Lourenço Marques R. for Happy listening broadc. from Portugal Moçambique... broadc. in the 25, 42, 49, 60, 92, 327 metre bands" – **INT-SIG:** Gong – V. by QSL-card – Records accepted – **PUB:** Monthly: Radio Moçambique.



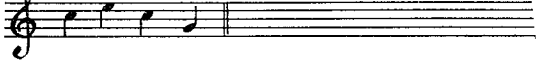
"C" PRGR. in Portuguese (to Portugal & Europe): D 16.30–20.00 on 1340/17775kc/98Mc; Sun also 07.00–09.00 on 17775kc – N: 17.30.
PRGR'S in Ronga, Shangane: D 16.00–19.00 on 1223/3300/4865kc. Sun also 05.00–09.00 on 1223/4865kc. **Ronga:** D 17.00–19.00; Sun also 07.00–09.00 – **Shangane:** D 16.00–17.00; Sun also 05.00–07.00.
REG. STATIONS (all 0.25kW): **Emissor Reg. de Cabo Delgado:** 1421kc – 3395kc 88.37m – 4940kc 60.73m – 7115kc 42.16m
Portuguese: Sun: 05.30–07.30 on 1421/7115kc, 09.30–12.00 on 7115kc, 17.30–20.00 on 1421/3395kc. D: 10.30–12.00 on 1421/7115kc. W exc. Wed, Fri: 16.00–19.00 on 1421/3395kc – **Macua do Medo:** Sun: 09.30–10.30 on 1421/7115kc, 16.00–17.30 on 1421/3395kc. Wed: 17.30–19.00 on 1421/3395kc.
Emissor Reg. do Norte (Nampula): 1223kc, 3200kc 93.75m, 3300kc 90.91m, 4855kc 61.79m, 4975kc 60.30m, 7190kc 41.72m – **Portuguese:** W: 09.30–11.30 on 1223/4855/7190kc, Sun: 07.00–08.30 on 1223/4855kc, 09.00–11.30 on 1223/4855/7190kc. D: 16.30–18.00 on 1223/3300kc, 18.00–20.00 on 1223/3300/4855kc – **Macua:** D 17.00–18.00 on 4855kc, Sun also 06.00–08.30 on 4975kc.
Emissor Reg. da Zambezia (Quelimane): 935kc, 3210kc 93.44m, 4865kc 61.66m, 4940kc 60.73m, 7160kc 41.90m, 9621kc 31.19m – **Portuguese:** 10.15(Sun 08.00)–12.00 on 935/7160kc, 16.00–20.30 on 935/4940kc – **Chuabo:** Sun: 05.00–07.00, 10.00–11.00 on 9621kc, 17.00–19.00 on 3210kc. W: 17.00–18.00(Wed, Sat 19.00) on 3210kc.
F.PL: New st. at Beira early 1964 using 1295, 1358, 3355, 4895, 6040, 7265, 9595kc on sched. identical to other Regionals.

EMISSORA DO AERO CLUBE DA BEIRA (Priv, Comm.)

FI: By adv – **ADDR:** C.P.3, Beira. **Cable:** Aero. **Te:** 2505 – **L.P:** Dir: F. J. Silvério Moiteira.
STATIONS: mw. 5kW, sw. 0.3kW: 1430kc – 3255kc 92.15m – 7255kc 41.35m.
HOME SCE. in Portuguese: W: 04.30–06.00, 09.30–11.30(Sat 12.00), 16.00–21.00. Sun: 05.00–12.00, 15.00–21.00.
N: 04.50(W), 10.00, 16.50, 17.45, 20.15 – **ANN:** "Aqui Portugal, Moçambique-fala-vos a Emissora do Aéro Clube da Beira" – **INT-SIG:** Chimes – V. by QSL-card. Records accepted.

RADIO PAX (Rel. Owned by Franciscan Fathers)

FI: By gifts and state – **ADDR:** C.P. 594, Beira. **Cable:** Radio Pax. **Te:** 2763 – **L.P:** St. Mgr: Dr. M. Reis Miranda. Dir. Tec: A. Especial. Dir. A. Gonçalves.
STATIONS: mw. 0.5kW, sw. 5 kW.
1295kc – CR7RA 3960kc 75.76m – CR7RB 7205kc 41.64m
HOME SCE. in Portuguese: D: 04.00–05.30, 09.30–11.30 on 1295/3960/7205kc, 16.25–21.00 on 1295/3960kc. N: 04.45, 10.15, 17.30, 20.30 – **ANN:** "Aqui Portugal, Moçambique. Fala-vos a R. Pax, Emissora Católica, com os seus estúdios na Beira" – V. by QSL-card or letter – **INT-SIG:** Chimes. Prgr's open with a religious choir – **F.PL:** 10kW.



NIGER (Republic)

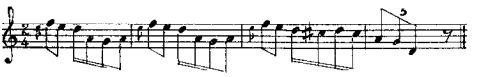
L.T: GMT+1 h – **Pr.L:** French, Hausa, Djerma, Tamachek, Peulh, Beriberi.

RADIO-NIGER (Go.)

ADDR: B.P. 361, Niamey. **Cable:** Radioniger. **Te:** 2272 – **L.P:** Dir: B. Lucas, Asst. Dir: G. Sidikou. Dir. Tec: L. Vigié. Dir. Prgr: A. Alirou.
STATIONS (System TRT):

kc	m	kW	Net.	kc	m	kW	Net.	kc	m	kW	Net.
1511	198.4	1	I	5020	52.76	4	I	7105	42.22	30	II
3260	92.02	4	I	6060	49.50	4	I+III	7135	42.05	4	I
4785	62.70	30	II								

HOME SCE: Net. I: W: 05.30–06.30, 17.00–21.00 on 1511/3260/5020kc, 11.30–13.15 on 1511/6060/7135kc. Sun: 07.00–16.30 on 1511/6060/7135kc, 16.30–21.00 on 1511/3260/5020kc – **Net. II:** W: 05.30–06.30, 17.00–21.00 on 4785kc, 11.30–13.15 on 7105kc. Sun: 07.00–16.30 on 7105 kc, 16.30–21.00 on 4785kc – **Net. III:** W: 06.30–11.30 on 6060kc. N: French (Net. I+II): 06.00, 12.00, 13.00, 17.00, 18.45, 21.00; Net. III at 07.30(W), 09.00(W), 10.30(W) – **Vernaculars:** Net. I: 12.30, 18.00 Djerma, 17.30 Tamachek, 17.45 Peulh. Net. II: 12.30, 17.45 Hausa, 17.30 Beriberi. Net. III: 09.05, 10.35 Djerma, 09.10, 10.40 Hausa.
ANN: At opening and close down "La Nigerienne". Local flute and "Ici Niamey Radiodiffusion de la République du Niger".
INT-SIG: Local Flute.



V. by QSL-card. Records accepted – **F.PL:** Mw. rel. st's at Ni Guigmi, Zinder, Maradi – **PUB:** Prgr.schedule (weekly).

NIGERIA (Republic of)

L.T: GMT+1 h – **Pr.L:** English, Yoruba, Hausa, Ibo.

THE NIGERIAN BROADCASTING CORPORATION

(Statutory Corporation)
FI: By state plus comm. revenue – **AD:** 11 times per day: 05.20, 05.33, 06.10, 11.18, 12.10, 13.03, 13.30, 14.10, 17.45, 18.20.
ADDR: Broadcasting House, Lagos. **Cable:** Broadcast. **Te:** 26411. **L.P:** Dir. Gen: E. V. Badejo. Dir. Tec: D. M. T. Oke. Dir. External Sce: C. Achebe. Dir. Prgr. (Ag): Y. Olumide. Dir. Adm: H. N. Osakwe. Secr: O. Fashina.
NATIONAL PRGR. (from Lagos):
1458kc 206m 5kW: 05.00–22.30 (Sat 23.00, Sun 05.00–22.00).
4990kc 60.12m 20kW: 05.00–09.00, 14.00–22.30(Sat 23.00. Sun 05.00–09.00, 14.00–22.00).
7255kc 41.35m 20kW: 08.00–16.00 (Sun 08.00–22.00).
N: English: 05.30, 06.00*, 07.00, 09.00, 10.00, 11.00, 12.00*, 13.00, 14.00*, 15.00, 16.00, 17.00, 18.00**, 19.00, 20.00**, 21.00, 22.00. * 10 min. ** 15 min. other times 3 min. news-summary.
Educational Prgr's in English: D 07.45, 09.30, 10.03, 11.03, 15.30.
N. in Hausa, Ibo, Yoruba: 08.00, 17.03, 21.03.
WEST REG. PRGR. (from Ibadan):
1358kc 221m 10kW: as Lagos 1458kc
1397kc[1] 215m 0.25kW: as Lagos 1458kc [1]=Ijebu-Ode, Warri.
3204kc 93.64m 5kW: Mo-Fri 05.00–07.00, 16.45–22.30. Sat 05.00–07.08, 16.45–23.00. Sun 05.00–07.08, 16.45–22.00.
7285kc 41.18m 1kW: D 07.15–16.30.
N. in English, Yoruba: 13.30, 19.00.
EAST REG. PRGR. (from Enugu):
1320kc 227m 10kW: 05.00–22.30(Sat 23.00, Sun 05.00–22.00).
1397kc[2] 215m: as 1320kc[2]=Onitsha, P. Harcourt.
1397kc[3] 214 m 10kW: as 1320kc [3]=Calabar.
3980kc 75.38m 2.5/5kW: 16.45–22.30(Sat 23.00).
6145kc 48.82m 2.5/5kW: 07.15–16.30.
N. in English, Ibo, Efik: 14.30, 19.00.
NORTH REG. PRGR. (from Kaduna):
1416 kc 212 m 1 kW: 05.00–22.45(Sat 23.15, Sun 22.15).
1376[4] – 218 – – : 05.00–22.30(Sat 23.15, Sun 22.35).
1397[5] – 214 – – : 05.00–22.30(Sat 23.15, Sun 22.35).
3326 – 90.20 – 7.5/20 – : 05.00–08.00, 16.45–22.45(Sat 23.15, Sun 22.15).
3396 – 88.36 – 10 – : 16.45–22.45(Sat 23.15, Sun 22.15).
6175 – 48.58 – 20 – : 07.30–16.30.
9655 – 31.07 – 10 – : 09.30–16.30.
[4]=Kano. [5]=Jos, Sokoto, Ilorin, Maiduguri, Zaria, Katsina.
N. in English, Hausa: 14.30, 19.00.
EXTERNAL SERVICES to No, Ea, C. and So. Africa, M. East (from Lagos): 14.00–20.00 on 7275/9690kc (10kW).
English: 14.00–15.00, 17.00–19.00. **N:** 14.00, 17.00, 18.00* – **French:** 16.00–17.00, 19.00–20.00. **N:** 16.00,* 19.00 – **Arabic:** 15.00–16.00. **N:** 15.00. * 10 min newscast.
The Marconi Company Ltd, G.B: Sw-tr's: 1×7½, 1×20, 4×10kW (Lagos).

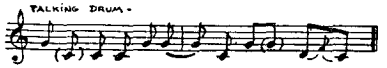
VOICE OF NIGERIA

A NEW VOICE COMING OUT OF AFRICA'S LARGEST NATION

"We believe in following the path of truth".

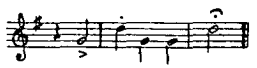
SIR ABUBAKAR TAFAWA BALEWA
Prime Minister,
Federation of Nigeria

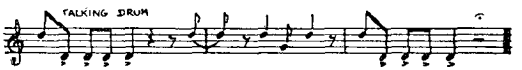
ANN: "This is the Nigerian Broadc. Corpo" or "This is Voice of Nigeria" – INT-SIG: National prgr: Talking Drum.



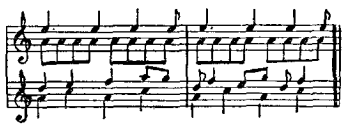
North Regional Programme: Trumpet-Type Instrument.

West Regional Programme: Talking Drum.





East Regional Programme: Snake Drum-Xylophone Bass.



V. by QSL-card. Re. will be welcomed by Chief Engineer – PUB: Monthly: Transmission schedules are distributed free of charge. The Nigerian Radio Times available on a subscription basis.

EASTERN NIGERIA BROADCASTING SERVICE

(Go. owned).
ADDR: Box 350 Enugu. Cable: Easteller. Te: 2579 – L.P: Gen: Mgr: K. Okoronkwo. Sen. Eng: R. B. Matthias.
STATIONS: 953kc 315m 10kW – 4855kc 61.79m 10kW.
HOME SCE: W 05.00–23.00. Sun 06.00–22.00.
N: English: 05.45, 11.00*, 13.45, 17.00, 20.00*.
Vernaculars (Ibo, Efik, Ijaw): 06.10, 12.00, 13.10. * = BBC.
ANN: "This is the Eastern Nigeria Broadc. Sce" or "This is the voice of Eastern Nigeria" – INT-SIG: Drum (repeated) – V. by letter or QSL-card. Records accepted. – F.PL: 100kW mw-tr. commence operation early 64.

WESTERN NIGERIA RADIOVISION SERVICE LTD. (Comm.)

FI: 100% from We. Reg. Go. of Nigeria – AD: D 6 min. each h.
ADDR: P.O. Box 1460, Ibadan. Cable: Radvision. Te: 24381 – L.P: Dir: V. O. Fayemi. Secr: A. Oyelowo. Dir. Tec: J. O. Oyeleye. Contr. of Prgr's: S. Rhodes. Public Rel. Officer: M. A. Otedola.
STATIONS:
Abafon 602kc 498m 10kW – Ibadan *3380kc 88.70m 10kW
Ibadan 656 – 457 – 10 – – Ibadan **6185 – 48.50 – 10 –
* 16.40–23.05 ** 05.00–16.60
HOME SCE: W 05.00–22.05(Sat 23.05). Sun 06.00–22.05. N. in English: 05.30, 06.00, 07.00 (BBC), 17.00. N. in Yoruba, Edo, Hausa: 15.00 – ANN: "This is the Western Nigeria Broadc. Sce." or "This is WNBS, Ibadan" – V. by QSL-card or letter. Re. to Chief Eng.

RADIO KADUNA (Comm.)

FI: By commercials but subsidised – ADDR: P.O. Box 250, Kaduna, No. Nigeria. Cable: Radionorth. Te: 2294 – L.P: Man. Dir: L. A. W. Diamond. Chief Eng: R. Sharpe.
STATIONS: 940kc 250kW – 6090kc 49.26m 10kW.
HOME SCE. in English, Hausa: 14.00–21.00 on 940/6090kc. N: English: 14.15, 18.30. Hausa: 14.25, 18.40.
ANN: "This is R. Kaduna" – INT-SIG: Bauchi Drums – V. by letter. Records accepted.
Brown Boveri, Switzerland: One 250kW mw-tr, (Jaji) one 10kW sw-tr.

REUNION (French)

L.T: GMT + 4 h – Pr.L: French.

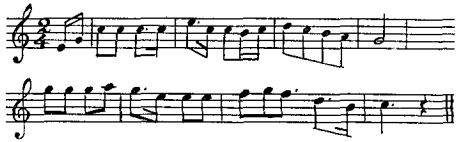
RADIO REUNION (R.diff. Télévision Française)

ADDR: B.P. 309, St. Denis, La Réunion. Te: 868 – L.P: Chef des Sce's: B. Guyot. Dir. Tec: H. Pottier. Dir. Inf: J. Vincent-Dolor.
STATIONS (System TRT):

620 kc	483.9 m	8 kW	all times	
2246 –	122.6 –	8 –	02.30–05.00	
3380 –	88.76 –	8 –	13.00–18.30	
4807 –	62.41 –	4 –	05.00–13.00	
7245 –	41.41 –	4 –	05.00–13.00	

HOME SCE. in French: W: 02.30–03.45, 08.00–09.45, 14.00–18.00. Sat: 02.30–03.45, 08.00–18.30. Sun: 03.00–18.00 – N: W: 02.30, 03.30, 08.30, 14.07, 16.00. Sun: 04.00, 08.30, 16.45 – Wrp: W: 03.30, 14.07, 16.00. Sun: 04.00, 14.00, 16.45.

ANN: "Ici La Réunion, Radiodiff. Télévision Française" – **V.** by letter. Rp. – **INT-SIG:** "Madina" (Reunion Folklore) played on guitar.



RHODESIA and NYASALAND

L.T: GMT+2 h – **Pr.L:** English, African, Vernaculars.

THE FEDERAL BROADCASTING CORPORATION

(Indep. statutory body, established by Federal Act of Parliament). The Corpo. is due to be dissolved during 1964 and replaced by three separate organizations in So. Rhodesia, No. Rhodesia, Nyasaland.

FI: By state, license payments and adv – **AD:** Max. 10 min per h and 15% of total daily tr. h – **ADDR:** Northern House, Baker Avenue, P.O. Box 2696, Salisbury. **Cable:** Broadcasts. **Te:** 25685 – **L.P:** Chmn. of Board: B. G. Paver, OBE. Dir. Gen: J. McClurg. Dep. Dir. Gen: C. K. Grierson Rickford. Contr. Gen. Sce: J. H. Parry. O.B.E. Contr. African Sce: C. Sapseid. Chief Eng: J. M. Reeves. M.I.E.E. M.I.R.E.

STATIONS: Medium Waves:

Location	kc	m	kW	Prgr.	Location	kc	m	kW	Prgr.
Salisbury	584	514	2	G/C	Lusaka	962	312	2	G/C
Bulawayo	611	491	2	G/C	Umtali	980	306	2	G/C
Gwelo	683	439	2	G/C	Kitwe	995	302	20	G/C
Gatooma	791	379	2	G/C	Que Que	1255	239	0.175	G/C
Kitwe	995	302	20	G/C	Bulawayo	1340	224	2	C
Salisbury	890	337	2	C	Lusaka	1376	218	2	A

The Marconi Company delivered: Salisbury 2×2kW, Bulawayo 2×2kW mw-tr's.

Short Waves:

Location	kc	m	kW	Prgr.	Location	kc	m	kW	Prgr.
Gwelo	2425	124.1	2.5	G/C	Lusaka	4965	60.42	2.5	"A"
Lusaka	3295	91.00	2.5	"B"	Gwelo	6020	49.83	20	G/C
Gwelo	3306	90.70	10	"C"	–	5975	50.21	10	"C"
–	9505	31.56	2.5	G/C	Lusaka	6060	49.50	20	"A"
–	3396	88.36	20	G/C	–	7285	41.18	10	G/C
Lusaka	3346	89.60	20	"A"	Gwelo	9505	31.56	2.5	G/C
–	4828	62.12	15	"A+B"	Lusaka	4965	60.42	2.5	"A"
–	4911	61.08	10	G/C					

G/C=Gen & Comm. Sce; A, B, C,=African prgr's (A+B=No. Region, C=So. Region).

HOME SERVICES

GENERAL SCE: W: 10.00–12.00, 15.00–20.00 (Sat 13.00–20.00), Sun: 05.55–12.00, 14.00–20.15 (05.55–20.15 on 1st Sunday in month). On 2425/3396kc: W 15.00–20.00, Sun 14.00–20.15. On 4911kc: D 15.00–17.20. On 6020kc: D 10.00–12.00. On 7285/9505kc: W 10.00–12.00, Sun 05.55–12.00.

COMM. SCE: W: 03.55–10.00, 20.00–21.05, Sat: 03.55–13.00, 20.00–22.00 – On 2425/3396kc: 03.55–05.40, 20.00–21.05(Sat 22.00). On 4911kc: 03.55–06.30. On 6020kc: 05.45–10.00. On 7285kc: 06.30–10.00 (Sat 15.00). On 9505kc: 05.45–10.00(Sat 15.00).

N: W: 04.00, 05.00, 06.00*, 10.10, 11.00*, 11.10, 16.00*, 18.00, 21.00. Sun: 06.00*, 09.00, 11.00*, 11.10, 16.00*, 18.00, 20.00 – **Wrp:** 04.10, 05.10, 11.15**. * rel. BBC. ** Wet season only.

AFRICAN SERVICE

Lusaka (A): W: 04.00–06.10 4828/6060kc, 10.00–15.45 4965/6060kc, 15.45–16.00 4965kc, 16.00–16.40 3346/4965kc, 16.40–20.00 3346kc. Sun: 10.57–15.45 4965/6060kc, 15.45–16.00 4965kc, 16.00–16.40 3346/4965kc, 16.40–20.00 3346kc.

Lusaka (B): D: 14.00–17.00 4828kc, 17.00–20.00 3295/4828kc.

Gwelo (C): W: 04.00–06.10 3306kc, 10.00–15.30 5975kc, 15.30–20.00 3306kc. Sat: 04.00–06.10 3306kc, 06.15–07.00 5975kc. Sun: 10.57–15.30 5975kc, 15.30–20.00 3306kc.

N in English (National): 04.00(W), 05.00(W), 06.00, 08.00(Sun), 10.10(W), 11.00, 11.10, 16.00, 18.00.

ANN: General/Comm. Sce's: "This is the Federal Broadc. Corpo." **African Sce:** "This is the Federal Broadc. Corpo." Lusaka: "Kuno ndi FBC ku Lusaka" ("A" & "B"). "C" Prgr: "Leyi Southern Region yi FBC African Sce." "Ino i Southern Region ye FBC African Sce." – **INT-SIG:** African Sce: Kalimba Xylophone, drums – **V.** by QSL-card. Re. wanted from C. & So. Africa.

RWANDA (Republic of)

L.T: GMT+2 h – **Pr.L:** Kinyarwanda, Swahili, French.

RADIO RWANDA (Go.)

ADDR: B.P. 83, Kigali. **Cable:** "Radiorwanda". **Te:** 42 – **L.P:** Chief of Inf. Sce: N. Buregeya.

STATION: 6050kc 49.59m 5.6kW.

HOME SCE. in Kinyarwanda, Swahili, French: 04.00–05.30, 09.00–11.30, 15.00–20.00 – **N: French:** 04.30, 10.15, 18.00. **Kinyarwanda:** 05.00,10.45, 17.00. **Swahili:** 17.15.

ANN: "Ici R. Rwanda Station Nationale de la Republique Rwandaise, emettant de Kigali" – **V.** by QSL-card. Prgr. sched. free. Records accepted.

SAO TOMÉ E PRINCIPE (Port W. Africa)

L.T: GMT – **Pr.L:** Portuguese.

R. CLUBE DE SAO TOMÉ (Comm.)

ADDR: Av. Infante D. Henrique, C.P. 10/2a, Sao Tomé. **Te:** 530 – **L.P:** Pres: R. S. de Almeida Carvalho. Dir. Tec: A. M. de Oliveira. **STATIONS:** CQA 760kc 395m 5kW – 4765kc 62.95m 1kW – 4865kc 61.66m 1kW – 5015kc 59.82m 1kW.

HOME SCE: W 06.00–07.00, 12.00–13.00, 18.30–22.00, Sun 09.00–13.00, 20.00–22.00. **N:** 12.30, 19.30 – **Mbg:** (DX-QSL): 20.30 – **ANN:** "Aqui Portugal, Provincia de Sao Tomé e Principe, fala vos o Radio Clube de Sao Tomé transmitindo na..." – **V.** by QSL-card. Rp. Prgr. sched. free.

Continental Electronics, USA: 1kW, 10kW sw-tr's.

SENEGAL (Republic)

L.T: GMT – **Pr.L:** French, Ouolof, Sérère, Toucouleur, Portuguese.

RADIODIFFUSION DU SENEGAL (Go.)

FI: By Go. and adv. – **ADDR:** B.P. 1765, Dakar. **Cable:** Radio Senegal. **Te:** 320-72 – **L.P:** Gen. Mgr: M. Diokhane. Dir. Tec: M. Puyhaubert. Dir. For. Rel: Miss Bathelli.

STATIONS:

kc	m	kW	Net	kc	m	kW	Net	kc	m	kW	Net
1304	230.0	8	II	4890	61.95	25	II	5960	50.34	25/100	I
1538	196.0	10	I	4950	60.60	4	II	5975	50.24	4	I
								9720	30.86	25/100	

Reg. St's: St. Louis (Senegal III): 1484kc 202.2m 1kW – Ziguinchor (Senegal IV): 3376kc 88.89m 4kW – 6070kc 49.42m 4kW.

R. SENEGAL I (International Net): 06.00(Sun 07.00)–10.00 on 1538/4950/5960kc, 12.00(Sun 10.00)–15.00(Sat, Sun 18.00) on 1538/5960/9720kc, 17.00(Sat, Sun 18.00)–24.00 on 1538/4950/9720kc – **N. in French:** W 07.00, 08.00, 09.55, 12.00, 13.00, 14.55, 19.00, 20.00, 22.15, 23.55. Sun 08.30, 13.00, 19.00, 20.00, 22.15, 23.55. **English:** D 12.05–12.35 – **Portuguese:** W 17.30–18.00 – **Arabic** (irr): W 17.00–17.30.

R. SENEGAL II (Nat. Net.): 06.00(Sun 07.00)–10.00 on 1304/4890kc, 12.00(Sun 10.00)–15.00(Sat 18.00, Sun 17.00) on 1304/5975kc, 17.00 (Sat 18.00)–24.00 on 1304/4890kc – **N. in French:** 08.00, 09.55(W), 13.00, 14.55(W), 20.00, 22.15,23.55(W) – **N. in Ouolof:** W: 06.45, 13.15, 18.15, Sun: 07.30, 13.15 – **Vernaculars:** W 06.55–07.25, 17.20–17.55, Sun 08.15–08.45. Other prgr's in French.

SENEGAL III: Relay R. Senegal II.

SENEGAL IV: Relay R. Senegal II: 06.00(Sat, Sun 07.00)–10.00, 17.00(Sat, Sun 18.00)–24.00 on 6070kc; 12.00(Sun 10.00)–15.00(Sat, Sun 18.00) on 3376kc.

ANN: F: "Ici Sénégal Inter émettant de Dakar sur..." – "Ici Senegal II, Chaine Nationale émettant de Dakar". **E:** "This is the English prgr. of the International Sce. of the Senegalese Broadc. System" – **INT-SIG:** Melody on "Khora" (local Harp) – **V.** by QSL-card. **Rp – F.PL:** 200 kW mw-tr. before the end of 1963 Reopening of European Sce. **D** at 18.00–18.30 on 9720kc in French/English/German.

SEYCHELLES (British)

L.T: GMT+4 h – **Pr.L:** English, French, Creole.

SEYCHELLES BROADCASTING SERVICE (Go.)

ADDR: Dept. of Tourism & Inf. P.O. Box 92, Victoria. **Cable:** Tourism. **Te:** 447 – **L.P:** Dir: D. J. Knox. Broadc. Asst: Miss G. Low-Hang. Dir. Tec: B. Ward.

STATION: ZCQ3 4990kc 60.12m 0.04kW – **HOME SCE:** D 14.15–16.15. **N. (BBC):** 16.00 – **ANN:** E: "This is R. Seychelles" – **V.** by letter.

SIERRA LEONE

L.T: GMT - **Pr.L:** English, Mende, Temne, Krio.

SIERRA LEONE BROADCASTING SERVICE (Go.)

FI: By state, license payments and adv – **AD:** Comm. spots now accepted – **ADDR:** New England, Freetown. **Cable:** Broadcasts. **Te:** 3059-9 – **L.P:** Dir. Broadc: J. J. Akar. Head Prgr's: G. H. Cowan. Chief Eng. (Ag): P. F. George.

STATIONS: 1200kc 10kW – 3316kc 90.46m 5kW – 5980kc 50.17m 5kW.

HOME SCE: W 06.00–09.15, 15.45–23.00, Sun 06.00–09.00, 15.00–23.10 – **N: English:** (BBC): 07.00, 16.00, 20.00 – **Nat. N:** 06.45 (Vernaculars, English), 18.00 (Vernaculars), 20.10, (English) – **"African Magazine":** Fri 21.00 – **"Window on the World":** Wed 21.00 – **"Brainstrust"** (Letter Box): Mo 22.00.

ANN: "This is Sierra Leone Broadc. Sce." – **INT-SIG:** "The rain is coming" played by Military Band – **V.** by letter. Records accepted.

The Marconi Company Ltd, G.B: 2 10kW sw-tr's.

SOMALI (Rep)

L.T: GMT+3 h – Pr.L: Somali, Italian, Arabic, English.

NATIONAL BROADCASTING STATION (Go.)

ADDR: Radio Mogadiscio, Mogadiscio. Te: 444.
STATION: 4970kc 60.36m 5kW – 7150kc 41.96m 5kW.
HOME SCE: 09.30–11.00, 13.00–15.30, 16.30–19.00.
ANN: Italian: "Transmette Mogadiscio".

RADIO SOMALI (Go.)

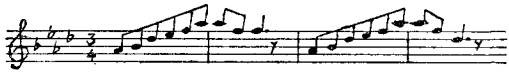
ADDR: P.O. Box 14, Hargeisa, Northern Region. Cable: Informat. Te: 15 – L.P: Dir. Gen: Mohammed Hashi. St. Mgr: A. Dualih.
STATIONS: 4797kc 62.54m 10kW – 9675kc 31.01m 5kW.
HOME SCE. in Somali: 09.30(Fri 09.00)–10.30, 13.30–15.30, 16.30–17.30. N: 14.15, 17.00 – English: 15.30–16.30. N: 16.00.
ANN: "Halkan WAA, R. Somali, Hargeisa" ("This is Hargeisa, Radio Somali") – INT-SIG: March – V. by QSL-card.
The Marconi Company, GB: 1×10kW mw-tr.

SOMALILAND (French)

L.T: GMT+3 h – Pr.L: French, Somali, Afar, Arabic.

RADIO-DJIBOUTI (Rdiff. Télévision Française)

ADDR: B.P. 97, Djibouti. Cable: Radiodiffusion. Te: 177 – L.P: Dir. J. Varnoux. Eng: L. Sébastien.
STATIONS (System TRT):
1538kc 195.0m 4kW – 4780kc 62.76m 4kW – 6000kc 50.00m 1kW.
HOME SCE. (all frequencies): W 03.30–05.15, 09.00–11.30, 14.00–20.00, Sun 07.00–12.00, 14.00–20.00. French: 03.30–04.15, 05.00–05.15, 09.00–09.30, 16.30–19.00. N: 03.45, 09.15, 17.00 – Afar: 10.00–10.45 (Sun 10.30–11.15), 15.00–16.00. N: 10.30(W), 11.00 (Sun), 15.45 – Somali: 10.45–11.30 (Sun 11.15–12.00), 14.00–15.00. N: 11.15 (W), 11.45 (Sun), 14.45 – Arabic: 04.15–05.00 (Sun 07.00–08.15), 09.30–10.00, 16.00–16.30, 19.00–20.00. N: 04.15 (W), 08.00 (Sun), 09.45, 16.00, 19.00.
ANN: F: "Ici Djibouti Radiodif.-Télévision Française". Afar: "Ah Djibouti Radio". Arabic: "Houna Djibouti dar el Iza'a el Francia lil Radio-wal Television". Somali: "Al kani wa Radio-Djibouti" – INT-SIG: Extrait de la "Suite Française" de D. Milhaud. (Guitar), all French prgrs – V. by letter. Rp. Records accepted.



SOUTH AFRICA (Republic)

L.T: GMT+2 h Pr.L: English, Afrikaans, Bantu.

SOUTH AFRICAN BROADCASTING CORPORATION (Indep. Org.)

FI: By license payments and adv – ADDR: P.O. Box 8606, Johannesburg. Cable: Broadcast. Te: 231151 – L.P: Chmn: Dr. P. J. Meyer. Sen. Dir: N. L. Filmer. Dir. Comm. Sce's and Legal Adviser: J. P. A. van der Walt. Dir. Prgrs: C. D. Fuchs. Dir. Finance: J. N. Swanepoel. Chief Eng: H. O. Collett. Head Afrikaans Sce: M. M. van Lille. Head English Sce: H. J. Howell. Head Publ. Rel: P. S. Louw. Head Comm. Sce: W. S. P. Hanekom.

HOME SERVICES: National Medium-Wave Stations: 0.5/1/2/5 10kW.

	kW	English Sce. kc	Afrikaans Sce. kc	Comm. Sce. kc
Johannesburg:				
West Rand	5	638	719	575
East Rand	5	1034	827	1286
Pretoria	2	1439	1097	1268
Bloemfontein	5	674	593	782
Kimberley	0.25	1070	1241	962
Grahamstown	5	620	701	809
Port Elizabeth	2	1313	1043	1178
East London	0.4*	1025	1151	908
Cape Town	10	656	557	728
Durban	5	566	692	800
Pietermaritzburg	5	764	665	845
Pietersburg	5	1115	863	989

* Comm. Sce. 1kW.

FM:	kW	English	Afrikaans	Comm.
Welverdiend	50	93.71 Mc	89.75 Mc	97.67 Mc
Johannesburg	100	95.52 –	103.42 –	99.47 –
Rustenburg	30	91.13 –	106.95 –	95.08 –
Pretoria	50	88.98 –	96.89 –	92.94 –
Alverstone	120	90.01 –	105.84 –	93.97 –
Pt. Shepstone	36	102.65 –	90.79 –	98.70 –
Bloemfontein	120	103.94 –	88.12 –	96.03 –
Theunissen	36	103.17 –	99.21 –	107.17 –
Pt. Elizabeth	36	103.51 –	99.56 –	87.69 –
Grahamston	36	93.54 –	101.36 –	89.50 –
Keiskamahoek	36	100.59 –	92.68 –	104.55 –
East London	36	107.13 –	95 26 –	91 30 –
Cape Town Major	36	89.50 –	105.32 –	97.41 –
Cape Town Minor	0.5	106.67 –	102.74 –	90.87 –

D.PRGR: English, Afrikaans: D 03.30–21.15 (incl. Bantu Prgr's W 03.30–04.30, 07.30–08.00) – N: English: 05.00, 06.00, 09.00, 11.15, 14.00, 16.00, 17.15, 19.00, 21.00. Afrikaans: 04.45, 06.00, 09.00, 11.15, 14.00, 16.00, 17.00, 19.00, 21.00.
Comm. Sce. (Springbok R.): W 03.00–22.00(Fri 24.00), Sun 05.00–21.00 – N: English: W 04.30, 05.30, 09.29, 11.00, 14.29, 17.00, 20.30; Sun 06.30, 11.00, 16.30, 19.30 – Afrikaans: W 03.45, Sun 06.30.
National Shortwave Stations (Paradys) 20kW:

English Sce. kc	English Sce. m	Afrikaans Sce. kc	Afrikaans Sce. m	Comm. Sce. kc	Comm. Sce. m
2326	129.50	2346	128.0	2376	126.3
3370	89.02	3320	90.34	3251	92.28
4895	61.29	4810	62.37	4945	60.67
6095	49.22	6005	49.96	6150	48.78
7275	41.24	7230	41.49	7185	41.76
9525	31.50	9650	31.09	9720	30.86

Wave bands in use and times of operation on various frequencies are changed to suit propagation conditions.

Schedule October 63–April 64

October–December 63 English	Afrikaans	Comm.	m.b.
04.30–05.40	04.30–05.30	03.00–05.35	90, 60, 49
05.40–06.55	05.30–07.05	05.35–07.00	60, 49, 31
06.55–14.35	07.05–14.25	07.00–14.30	49, 41, 31
14.35–16.15	14.25–15.50	14.30–16.00	60, 49, 31
16.15–21.15	15.50–21.15	16.00–22.00	90, 60, 49
Jan.–April 64			
04.30–05.00	04.30–05.00	03.00–05.00	120, 90, 60
05.00–07.00	05.00–07.00	05.00–07.00	90, 60, 49
07.00–14.30	07.00–14.30	07.00–14.30	60, 49, 41
14.30–15.45	14.30–15.45	14.30–15.45	60, 49, 41
15.45–21.15	15.45–21.15	15.45–22.00	120, 90, 60

Freq. change times are approx . On Sun English & Afrikaans commence at 05.30. Comm. Sce. Sun 05.00–21.00.

FM-Services in Vernaculars

Station	kW	Mc	L	Mc	L
Welverdiend	50	105.56	Tswana		
Johannesburg	100	107.38	Zulu	91.56	So. Sotho
Rustenburg	30	102.99	Tswana		
Pretoria	50	104.80	No. Sotho	100.85	Tswana
Alverstone	102	97.92	Zulu		
Pt. Shepstone	36	106.61	Zulu	94.74	Xhosa
Bloemfontein	120	92.08	So. Sotho	99.99	Tswana
Theunissen	36	91.30	So. Sotho	95.26	Tswana
Pt. Elisabeth	36	91.65	Xhosa		
Grahamston	36	105.32	Xhosa		
Keiskamahoek	36	88.72	Xhosa		
East London	36	103.17	Xhosa		
Cape Town Major	36	93.45	Xhosa		
Cape Town Minor	0.5	94.83	Xhosa		

AFRICA SERVICE: International St. at Paradays near Bloemfontein
STATIONS: 20kW.
6150kc 48.78m – 9525kc 31.50m – 15155kc 19.80m – 17885kc 16.78m – 7275kc 41.24m – 11900kc 25.21m.
W 03.00–04.00, 10.00–21.15. Sun 11.00–21.00.
Wave bands in use and times of operation on various freq's are changed to suit propagation conditions.

NEWS[1]	L.	Nov/Feb (kc)	March/April (kc)
03.45–04.00	English*	7275, 9525	6150, 7275
11.00–11.15	English*	15155, 17885	15155, 17885
11.15–11.25	Afrikaans	15155, 17885	15155, 17885
14.00–14.03	English	15155, 17885	15155, 17885
16.00–16.05	English	15155, 17885	11900, 15155
16.05–16.10	French	15155, 17885	11900, 15155
17.00–17.10	Afrikaans	15155, 17885	9525, 11900
17.15–17.25	English	15155, 17885	9525, 11900
19.00–19.15	English	15155, 11900	7275, 9525
20.30–20.35	English*	9525, 11900	7275, 9525
21.00–21.05	**	9525, 11900	7275, 9525

[1] Mo-Fri; * Springbook R. ** Afrikaans Mo, Wed, Fri, English Tues, Thurs.

AKG, Austria, delivered studio equip. (recorders, microphones).
Telefunken AG, Germany, delivered 43 FM-tr's (0.8 and 3kW).
The Marconi Company Ltd, G.B. 9×20kW (Bloemfontein), 3×5kW (Pietermaritzburg), 3×5kW (Grahamstown), 1×5kW (Maraisburg), 1×5kW (Welgedacht).
Continental Electronics, USA, delivered 5kW mw-tr.
ANN: E: "This is R. South Africa". Afrikaans: "Dit is R. Suid Afrika". Comm. Sce: "This is Springbok Radio" – INT-SIG: Comm. Sce. (02.57): First Five notes of "Vat jou goed en trek Ferreira" – V. by QSL-card – PUB: "SABC/SAUK Bulletin".

SUDAN

L.T: GMT+2 h – Pr.L: Arabic, English.
SUDAN BROADCASTING SERVICE (Go.)
ADDR: P.O. Box 572, Omdurman. **Cable:** Izaa – **L.P:** Senior Contr. Broadc: Major El tag Hamad.
STATIONS: mw. 50kW, sw. 7.5/20kW. *=in use.

*575 kc	521.7 m	–	7200 kc	41.67 m	–	17890 kc	16.77 m
*4494 –	66.78 –	–	* 9508 –	31.55 –	–	21455 –	13.98 –
5995 –	50.04 –	–	*11855 –	25.31 –			
6150 –	48.78 –	–	15172 –	19.77 –			

The Marconi Co. Ltd, G.B. delivered 50kW mw-tr, 2×20kW sw-tr's.
Arabic: D 04.00–11.30, 12.30–13.00, 14.00–21.00 on 575/4494/9508/11855kc – **Local Prgr. for So. Sudan:** D 13.00–14.00 on 575/4494/9508/11855kc – **European Prgr. (English):** D 11.30–12.30 on 575/4494/9508/11855kc – **ANN:** Arabic: "Huna Omdurman". E: "This is the Sudan Broadcasting Service" – **V.** by letter – **F.PL:** 2×100kW mw-tr's, 50kW sw-tr. at Soba.

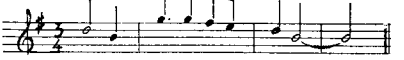
TANGANYIKA

L.T: GMT+3 h – Pr.L: Kiswahili, English.
TANGANYIKA BROADCASTING CORP. (Indep.-Comm.)
FI: In part grant in aid by Go, license payments.
ADDR: Broadc. House Box 9191, Dar es Salaam. **Te:** 63342. **Cable:** Sauti – **L.P:** Dir. Gen: M. B. Mdoe. Dir. Prgr: S. T. Chilunda. Dir. Tec: R. Williams. Dir. Adm: P.A. Sozigwa. Dir. N, current affairs: M. Kiama.
STATIONS:

kc	m	kW	Prgr.	kc	m	kW	Prgr.
836	359.0	1.25	Nat.	4845	61.92	0.25	
1025	292.7	1.25	2nd	4909	61.12	5	
*1250	240.0	1.25	Nat.	5050	59.41	20	Nat.
*1250	240.0	0.25	3rd	7165	41.87	20	Nat.
3251	92.28	5	Nat.	7280	41.21	10	2nd
3990	75.19	0.25		9530	31.48	5	
4785	62.70	10	2nd	*Mwanza. Others Dar es Salaam.			

The Marconi Company Ltd, B.G. delivered: 4×1.25kW mw-tr's, 1×20kW, 1×10kW sw-tr's.
HOME SCE: National Prgr. (Kiswahili): W 03.15–05.00 on 836/3251/5050kc, 09.00–10.30 (Sat 13.30) on 836/7165kc, 13.30–15.00 on 836/5050kc, 15.00–18.59 on 836/3251/5050kc, Sun 03.15–05.00 on 836/3251/5050kc, 05.00–07.00 on 836/5050kc, 07.00–13.30 on 836/7165kc, 13.30–15.00 on 836/5050kc, 15.00–18.59 on 836/3251/5050kc. **N:** 04.00, 09.00, 11.00, 17.00, 18.55 – **Wrp:** After 04.00, 17.00.
2nd Prgr. (English): 09.00(Sun 05.00)–10.30 (Sat/Sun 14.00) on 1025/7280kc, 16.00(Sat/Sun 14.00)–19.30 on 1025/4785kc – **N:** 09.00, 17.00, 18.00 (BBC), 19.25 – **Wrp:** 17.00.
3rd Prgr. (Educ.) in Swahili & English: 14.30–16.00 on 1250/4785kc. **N:** 15.00.
External Sce: 19.00–20.00 on 5050kc – **N:** 19.15.
ANN: E: "This is R. Tanganyika. **Kiswahili:** "Hii Ni Sauti Ya Tanganyika.

INT.-SIG.:
Celeste:



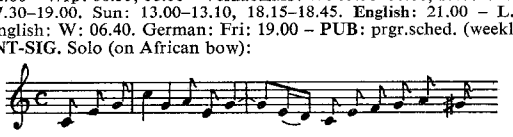
V. by QSL-card. Rp.

TOGO (Republic)

L.T: GMT – Pr.L: Ewe, Cabrais, Cotocolis, Haoussa, Moba, Bassari.
RADIODIFFUSION DU TOGO (Go.)
ADDR: B.P. 434, Lomé. **Te:** 2492. **Cable:** Radio Togo – **L.P:** Dir: G. Ekue. Dir. Tec: T. Mensah-Boboe.
STATIONS: (Systems TRT).

1394 kc	215.0 m	1 kW	–	5047 kc	59.44 m	4/100 kW	
3222 –	93.10 –	100 –	–	6155 –	48.74 –	4/100 –	

Telefunken A.G, Germany, delivered 100kW sw-tr, studio equip. (recorders).
HOME SCE. in French, Vernaculars: W: 05.30–08.00 on 1394/5047kc, 12.00–14.00 on 1394/6155kc, 17.30–23.00 on 1394/5047kc. Sat: 05.30–08.00 on 1394/5047kc, 12.00–15.00 on 1394/6155kc, 15.00–23.00 on 1394/5047kc. Sun: 06.00–10.00 on 1394/5047kc, 10.00–15.00 on 1394/6155kc, 15.00–23.00 on 1394/5047kc.
N: French: 05.30(W), 06.30(W), 06.00(Sun), 07.30(Sun), 12.30, 19.30, 22.00 – **Wrp:** 06.55, 08.00 – **Vernaculars:** W: 05.50–06.00, 13.00–13.10, 17.30–19.00. Sun: 13.00–13.10, 18.15–18.45. **English:** 21.00 – **L.L:** English: W: 06.40. German: Fri: 19.00 – **PUB:** prgr.sched. (weekly).
INT-SIG. Solo (on African bow):



ANN: "Ici Lomé Radiodiffusion du Togo". At opening and close down: Hymne Togolais – **V.** by QSL-card or letter.

TUNISIA

L.T: GMT+1 h – Pr.L: Arabic.
RADIODIFFUSION TELEVISION TUNISIENNE (Go.)
FI: By state and licence payments – **ADDR:** 139, Avenue de Paris, Tunis. **Te:** 259311 – **L.P:** Dir. Gen: H. Boulares. Dir. Tec: M. Chaffai. Dir. Arabic Prgr: T. Zalila, Dir. French Prgr: H. Abbas, Dir. For. Rel: H. Akrout, Dir. Adm: M. Mehiri.

HOME SERVICE

ARABIC NETWORK: Nat. Prgr: 05.00(16/6–30/9: 04.30)–23.30. Tunis I 629kc 477m 300kW – Sfax II 602kc 498.4m 5kW
FM: 96.5Mc 3kW – 6125kc 48.98m 50kW: 04.30–06.00 (to Morocco), 15.00–23.30 (to Morocco, Mid East) – 11970kc 25.06m 50kW: 06.00–15.00 (to Mid East) – **N, Wrp:** Every h on the h at 05.00–17.00, 19.00, 21.30, 23.00.
Sfax I 584kc 513.7m 0.05kW – Sfax II 602kc 498.4m 5kW 12.00–16.00, 19.30–21.00 – **N, Wrp:** 13.00, 14.00, 19.00, 20.55.
INTERNATIONAL NETWORK: Tunis II 962kc 312m 100kW – FM: 90.1Mc 3kW.
French: 05.00–07.00, 11.30–13.30, 16.00–22.00. **N. Wrp:** 05.00, 05.30, 06.30, 11.30, 12.30, 17.30, 18.30, 21.45 – **English:** 22.00–23.00. **N:** 22.30 – **Italian:** W: 13.30–14.30. Sun: 10.00–11.00. **N:** 14.00 (Sun 10.30).
FOREIGN SCE. in Arabic: 6125kc Morocco, 15.00–17.00 Mid East. **Telefunken A.G, Germany:** studio equip. (recorders).
ANN: Arabic: "Huna Al Ida A Att Tunissia" – **F:** "Ici Tunis Radiodiff. Télévision Tunisienne" – **E:** "This is Tunis, the Tunisian Broadc. System" – **I:** "Radiodiff. Tunisina, Rete Internazionale Programma Italiano" – **V.** by QSL-card. Re. in E or F. Records accepted – **PUB:** R. Revue "Al Idha'a" in French, Arabic (free).

UGANDA

L.T: GMT+3 h – Pr.L: English, Luganda, Lwo, Ateso, Runyoro, Rutooro, Runyankore/Rukiga.
RADIO UGANDA (Go.)
AD: Limited adv. planned – **ADDR:** Ministry of Inf., Broadc. and Tourism, P.O. Box 142, Kampala. **Cable:** Radioad – **Te:** 3147 – **L.P:** Dir: A. G. Ridley. Contr. Prgr's: J. Kenyon. Chief Engineer: A. Stephenson. Secr: Dr. G. R. Katongole.
STATIONS: M.w. 2/10kW, s.w. 5/8kW.

kc	m	Netw.	kc	m	Netw.	kc	m	Netw.
728	412.0	Red/Blue	4976	60.29	Red	7110	42.19	Blue
3340	89.81	Blue	5026	59.70	Blue	7195	41.70	Red

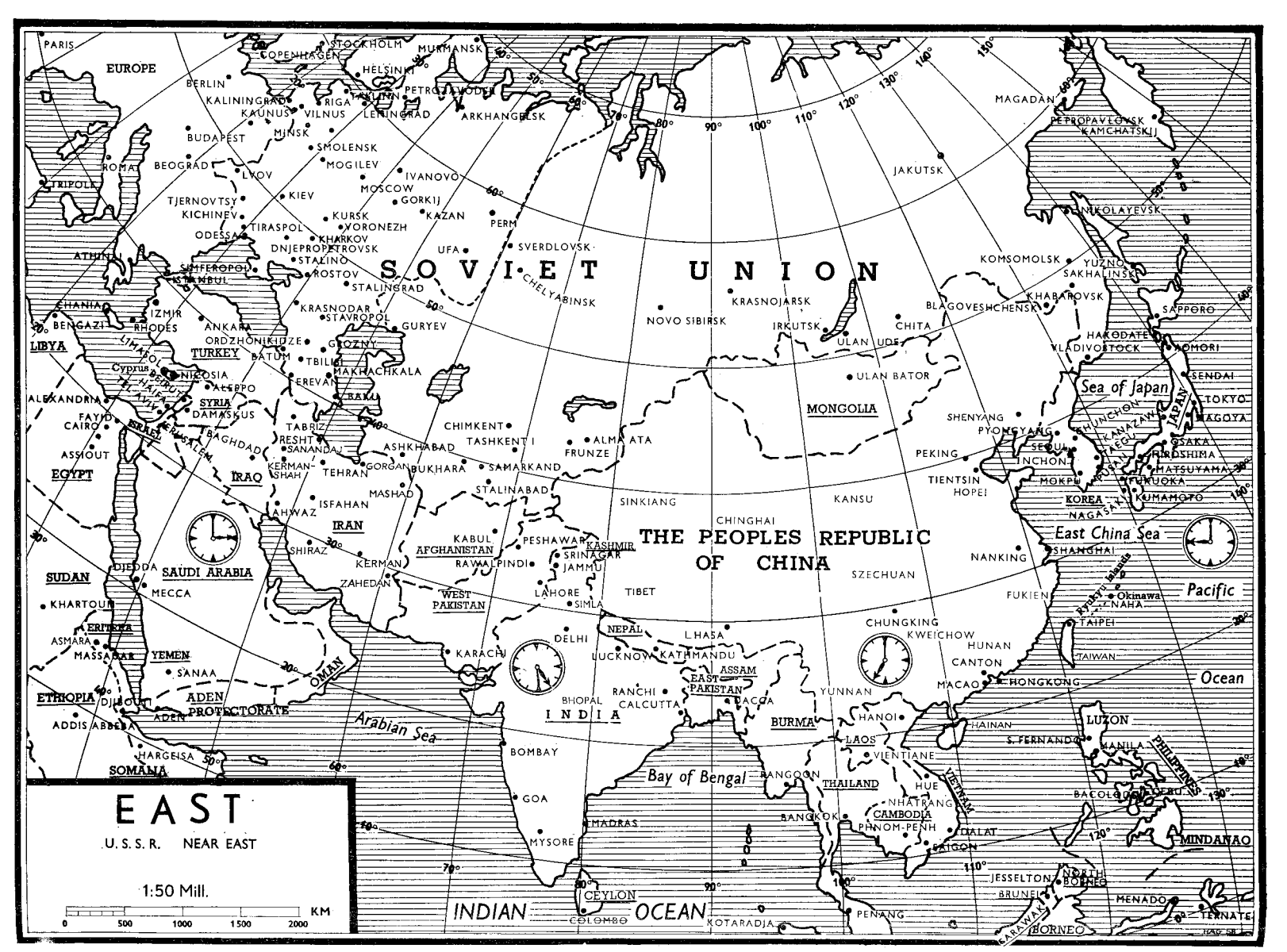
The Marconi Company, Ltd., G.B: Tr's: One 50kW, one 10kW, one 7.5kW tr's.
HOME SCE:
Red Network: W: 03.45–05.00 on 4976kc, 09.30–11.00(Sat 14.00) on 7195kc, 14.00(Sat 14.15)–20.00(Sat 21.00) on 728/4976kc. Sun: 09.00–14.00 on 7195kc, 14.15–21.00 on 728/4976kc.
Blue Network: W: 03.45–05.00 on 5026kc, 09.30–11.00(Sat 14.00) on 728/7110kc, 14.10(Sat 14.15)–20.00(Sat 21.00) on 3340kc. Sun: 09.00–14.00 on 7110kc, 14.15–21.00 on 3340kc.
ANN: E: "This is R. Uganda, Kampala". **Luganda:** "Eno ye R. Uganda, Kampala". **Lwo:** "Man en aye R. Uganda, Kampala". **Rutooro:** "Enu ni R. Uganda, Kampala". **Ateso:** "Ne nges R. Uganda, Kampala". **Rukiga:** "Egi ni R. Uganda, Kampala" – **V.** by QSL-card – Records accepted – **F.PL:** 3 channel transmissions.

UPPER VOLTA (Republic)

L.T: GMT – Pr.L: French, Moré.
RADUIO HAUTE-VOLTA (Go.)
FI: by state and OCORA – **ADDR:** B.P. 511, Ouagadougou. **Cable:** Radiovolta-Ouaga. **Te:** 2214 – **L.P:** Dir. Gen: V. Jean Louis. Dir. Tec: R. Haillecourt.
STATIONS (System TRT):
1439kc 208.4m 1kW – 4815kc 61.31m 4kW – 6045kc 49.63m 25kW.
HOME SCE. in French, Vernaculars: W 06.00–08.00, 12.00–14.00, 17.00–23.00. Sat 06.00–08.00, 12.00–23.00. Sun 07.00–23.00.
N. French: 06.30 (W), 07.45 (W), 08.30 (Sun), 12.00, 12.45, 19.00, 20.00, 22.25 (W), 22.55 (Sun).
English: Tues, Thurs, Sat 13.00, Sun 08.45 – **Wrp:** W 12.40 – **L.L:** (English) W 19.15 – **Vernaculars:** Peulh 17.45, Mossi 18.00, Dioula 18.11, Gourounsi 18.22, Gourmantsché 18.33, Lobi 18.44, Bobo 18.55, Senoufo 19.06 – **Reg.** St. (at Bodo-Dioulasso): 1529kc 1kW: 17.00–19.00 (N. in Vernaculars).
ANN: "Ici Ougadougou, Radiodiff. de la Haute-Volta émettant sur...".
INT-SIG: Folklore Music (Balafon) – **V.** by QSL-card or letter. Rp. Records accepted – **F.PL:** 100kW tr.

ZANZIBAR (British)

L.T: GMT+3 h – Pr.L: Kiswahili, Arabic, English.
ZANZIBAR BROADCASTING SERVICE (Go.
FI: Go. Maintained – **ADDR:** P.O. Box 1178, Zanzibar. **Cable:** Broadcasting. **Te:** 2128 – **L.P:** Dir: Y. M. Yusuf. Dir. Tec: N. J. A. Frigout.


EAST
U.S.S.R. NEAR EAST
1:50 Mill.
0 500 1000 1500 2000 KM
SOVIET UNION
THE PEOPLES REPUBLIC OF CHINA
INDIAN OCEAN
Arabian Sea
Bay of Bengal
Sea of Japan
East China Sea
Pacific Ocean
EUROPE
PARIS
COPENHAGEN
STOCKHOLM
MURMANSK
HELSINKI
BERLIN
KALININGRAD
RIGA
TALLINN
PETROZAVODSK
KAUNUS
VILNUS
LENINGRAD
ARKHANGELSK
BUDAPEST
MINSK
SMOLENSK
MOGILEV
ROMA
BEOGRAD
LVOV
IVANOVO
MOSCOW
TRIPOLI
TJERNOVTSY
KIEV
GORKIJ
KICHINEV
KURSK
KAZAN
PERM
TIRASPOL
VORONEZH
ODESSA
KHARKOV
DNJEPROPETROVSK
UFA
SVERDLOVSK
ATHINAI
STALINO
SIMFEROPOL
ROSTOV
ISTANBUL
STALINGRAD
CHELYABINSK
CHANIA
IZMIR
KRASNODAR
STAVROPOL
BENGAZI
RHODES
ANKARA
GURYEV
ORDZHONIKIDZE
GROZNY
LIBYA
TURKEY
BATUM
TBILISI
LIMASOL
Cyprus
BEIRUT
NICOSIA
MAKHACHKALA
ALEPPO
HAIFA
TEL AVIV
SYRIA
ALEXANDRIA
DAMASKUS
FAYID
CAIRO
ISRAEL
JERUSALEM
TABRIZ
BAGHDAD
RESHT
SANANDAJ
ASSIOUT
KERMANSHAH
TEHRAN
GORGAN
EGYPT
IRAQ
ASHKHABAD
BUKHARA
SAMARKAND
MASHAD
STALINABAD
ISFAHAN
AHWAZ
IRAN
SHIRAZ
KERMAN
ZAHEDAN
SUDAN
DJEDDA
SAUDI ARABIA
MECCA
KHARTOUM
ERITREA
ASMARA
MASSAUAR
YEMEN
SANAA
OMAN
ETHIOPIA
DJIBOUTI
ADEN
ADEN PROTECTORATE
ADDIS ABBEBA
HARGEISA
SOMALIA
CHIMKENT
TASHKENT I
ALMA ATA
FRUNZE
KABUL
AFGHANISTAN
PESHAWAR
KASHMIR
SRINAGAR
JAMMU
RAWALPINDI
WEST PAKISTAN
LAHORE
SIMLA
TIBET
NEPAL
DELHI
LUCKNOW
KATHMANDU
KARACHI
ASSAM
EAST PAKISTAN
RANCHI
CALCUTTA
BHOPAL
INDIA
DACCA
BOMBAY
GOA
MADRAS
MYSORE
CEYLON
COLOMBO
KOTARADJA
NOVO SIBIRSK
KRASNOJARSK
IRKUTSK
ULAN UDE
CHITA
ULAN BATOR
MONGOLIA
SINKIANG
CHINGHAI
KANSU
SZECHUAN
CHUNGKING
KWEICHOW
YUNNAN
BURMA
HANOI
LAOS
VIENTIANE
RANGOON
THAILAND
HUE
NHATRANG
CAMBODIA
BANGKOK
PHNOM-PENH
DALAT
SAIGON
VIETNAM
PENANG
JAKUTSK
MAGADAN
PETROPAVLOVSK
KAMCHATSKIJ
NIKOLAYEVSK
KOMSOMOLSK
YUZNO
SAKHALINSK
KHABAROVSK
BLAGOVESHCHENSK
SAPPORO
HAKODATE
VLADIVOSTOCK
AOMORI
SENDAI
TOKYO
NAGOYA
JAPAN
SHENYANG
PYONGYANG
SEOUL
CHUNCHON
KANAZAWA
TAEGU
OSAKA
HIROSHIMA
MATSUYAMA
FUKUOKA
KUMAMOTO
PEKING
INCHON
MOKPU
TIENTSIN
HOPEI
KOREA
NAGASAKI
SHANGHAI
NANKING
FUKIEN
Ryukyu Islands
Okinawa
NAHA
TAIPEI
TAIWAN
HUNAN
CANTON
MACAO
HONGKONG
HAINAN
LUZON
S. FERNANDO
MANILA
PHILIPPINES
BACOLOD
CEBU
MINDANAO
JESSELTON
NORTH BORNEO
BRUNEI
MENADO
TERNATE
SARAWAK
BORNEO
KAMCHATSKIJ

STATIONS: 600kc 500m 0.25kW – 4795kc 62.54m 0.25kW – 3339kc 89.80m 0.25kW – 6005kc 49.96m 3.5kW.
HOME SCE. in Kiswahili (occ. items in English, Arabic, Indian) on 600/6005kc: D 10.25–11.30, 13.30–16.30 – N: 13.45, 16.15 – **Arabic:** Fri 14.00–14.30.
ANN: Swahili: "Hiifni Sauti ya Unguja" – Arabic: "Hadha Saut Zinjibar" – E: "This is Zanzibar calling on..." – **INT-SIG:** Musical Chords – V. Re. not required – **F.PL:** Increase power.

ADEN (Federation of South Arabia)

L.T: GMT+3 h – **Pr.L:** Arabic, English.

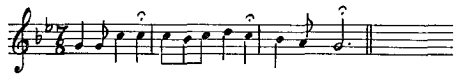
SOUTH ARABIAN BROADCASTING SERVICE
(Go. – soon comm. and public corpo.)
ADDR: P.O. Box 1264, G.P.O, Aden. **Cable:** Broadcasts. **Te:** 4874 – **L.P:** Dir. Gen: Vacant. Dir. Tec: D. A. Import. Dir. Prgr: H. Safi. Sales Mgr: A. Buchanan.
STATIONS: 785kc 382.2m 5kW – 5060kc 59.29m 7.5kW d.
The Marconi Company Ltd, GB: delivered 1×5kW mw-tr, 1×7.5kW sw-tr.
HOME SCE. in Arabic: 03.30–05.30(Fri, Sun 10.00), 12.00–19.30. N: 03.55, 04.45, 06.45(Fri, Sun), 09.55(Fri, Sun), 13.00, 15.00, 17.00, 19.00.
ANN: "Idha'at al Ganub al Arabi" or "Huna Ad'n" – V. by QSL-card or letter. Rp. preferred. Re. wanted from Arabic speaking countries only – **PUB:** Prgr.schedule free.

FORCES BROADCASTING SERVICE ADEN
ADDR: Steamer Point BFPO 69, Aden – **L.P:** Dir: M. A. Pachebat. Dir. Tec: J. Campbell.
STATION: 1241kc 242m 10kW – **HOME SCE. in English:** Mo–Fri: 02.45–05.15, 09.45–20.10. Sat: 02.45–05.15, 09.00–21.00. Sun: 04.00–20.10. N: 04.00, 13.00, 16.00, 18.00, 20.00 – **ANN:** "This is the Forces Broadc. Sce. Aden" – V. by letter. Records accepted.

AFGHANISTAN

L.T: GMT+4½ h – **Pr.L:** Pushto, Persian.

AFGHAN BROADCASTING SYSTEM (Go.)
ADDR: Radio Kabul, Baghi Omumi, Kabul. **Cable:** Aftel. **Te:** 22225. **L.P:** Pres: A. R. Benawa. Dir. Tec: M. Akram.
STATIONS: mw: 20kW, sw: 50kW.
660kc 454.5m 4710kc 63.69m 9705kc 30.91m 15225kc 19.70m
4040 – 74.25 – 4775 – 62.84 – 15135 – 19.82 –
Telefunken A.G, Germany: studio equip. (recorders).
HOME SERVICES: 02.30–04.30, 07.30–09.00 on 660/4040kc, 11.30–13.30, 14.30–17.30 on 660/4040/4710kc.
FOREIGN SERVICE: English: 10.30–11.00 to F. East on 15225kc. 11.00–11.30 to So. Ea. Asia, Indonesia on 15135kc. 14.00–14.30 to Near East on 4775kc – **Urdu:** 13.30–14.00 on 4775kc – **Russian:** 17.30–18.00 on 4775kc – **Arabic:** 18.00–18.30 on 9705kc – **German:** 18.30–19.00 to Europe on 9705kc – **French:** 19.00–19.30 to Europe on 9705kc. During Summer period 9705kc will be replaced by 15225 kc (18.00–19.30).
ANN: **Pushto:** "Da Kabul Dai" – **INT-SIG:** A record on national flute – V. by QSL-card.



BAHRAIN

L.T: GMT+4 h – **Pr.L:** Arabic.

BAHRAIN BROADCASTING STATION (Go.)
ADDR: Dept. of Public Relations, P.O. Box 253, Manama, Bahrain, Arabian Gulf. **Cable:** Relations. **Te:** 3460 – **L.P:** Dir. of Public Rel: Shaikh M. bin Mubarak Al-Khalifa. Dir. Tec: S. A. Khan.
STATION: 610kc 491.8m 2kW.
HOME SCE. in Arabic: D 16.00–19.30, Fri also 04.30–06.30. N: D 17.30 – **Wrp:** D 17.45 – **ANN:** Arabic: "Huna Al-Bahrain, Iza'at Al-Bahrain Al-Lasilkia" ("Here is Bahrain, The Bahrain Broadc. St") – **INT-SIG:** Toy symphony – V. by letter – **F.PL:** Power 4kW, 10kW sw-tr.

BORNEO, NORTH (Federation of Malaysia)

L.T: GMT+8 h – **Pr.L:** English, Malay, Kadazan, Murut, Chinese (Mandarin and Hakka), Indonesian.

NORTH BORNEO BROADCASTING SERVICE (Go.)
ADDR: Dept. of Broadc. and Inf., Jesselton. **Cable:** Infof. **Te:** 2711 – **L.P:** Dir. Broadc. & Inf: R. J. Brooks. Dir. Tec: W. A. M. Ramsbotham.
STATIONS: VQA 930kc 0.5kW – VQA52 4970kc 60.36m 5kW
HOME SERVICE: W: 22.30–00.30, 04.00(Sat 03.00)–06.00, 07.45–14.30. Sun: 22.30–06.00, 07.45–14.30. **English:** 23.00–23.30(W),01.30–04.00(Sun), 03.00–04.00(Sat), 05.00–05.30, 11.00–11.30, 13.00–14.30 – N: 23.00*, 23.10, 00.30*(Sun), 00.40(Sun), 05.00*, 11.00(W), 13.00 (BBC). *=from R. Australia.
Malay: 00.00–00.30(Sun 01.30), 05.30–06.00, 11.30–13.00 – **Chinese:** 23.30–24.00(Sun 00.30), 04.30–05.00, 08.00–09.30 – **Kadazan** (incl. Murut): 22.30–23.00(Sun 23.30), 04.00–04.30, 09.30–11.00 – **Indonesian:** 07.45–08.00.
ANN: "This is R. Sabah broadc. from Jesselton" – **INT-SIG:** Opens and closes with the sound of No. Borneo native gongs – V. by letter Re. to Head of Prgr's, R. Sabah, Jesselton – **PUB:** "R. Sabah Calling (fortnightly).

BRUNEI (British Protected State)

L.T: GMT+8 h – **Pr.L:** Malay, English, Chinese.

BRUNEI BROADCASTING SERVICE (Go.)
ADDR: Dept. of Broadc. & Inf, Brunei. **Cable:** Infoff. **Te:** 345 – **L.P:** Dir. of Broadc. & Inf: Dr. P. Yusoff, P. H. A. Rahim. Dept. Dir: S. bin Kadir. Chief Prgr: V. Krijgsman. Dir. Tec: M. K. O. Chen.
STATIONS:
970kc 1.2kW – 1240kc 20kW – FM: 89.5Mc 0.015kW
The Marconi Company, Ltd, G.B, delivered m.w. tr's: 1×20, 1×2kW, 1×660W. studio equip.
HOME SCE: 22.30–06.00, 08.00–14.30.
Malay: 22.30–23.30, 01.00–02.30, 04.30–06.00, 10.30–12.30 – **English:** 00.00–01.00, 03.30–04.30, 12.30–14.30. N: 03.15, 13.00 – **Chinese:** 23.30–00.00, 02.30–03.30, 09.00–10.30 – **Forces:** English and Gurkhali 16.00–17.00.
ANN: E: "This is R. Brunei". Malay: "Inilah Radio Brunei" – **INT-SIG:** Opens tr's with the sound of Native Tune – V. by QSL-card or letter (for Sw. only). Re. to Chief Eng. Records accepted. **F.PL:** 10kW sw-tr. under constr. on 4865, 7125kc – **PUB:** "Suara Brunei" (Voice of Brunei).

BURMA

L.T: GMT+6½ h – **Pr.L:** English, Burmese, Hindustani.

BURMA BROADCASTING SERVICE (Go.)
ADDR: Prome Rd., Kamayut P.O., Rangoon. **Cable:** Burbrocast. **Te:** 31355 – **L.P:** Dir: U Pe Thaw, B.A.B.L., D.M.A. Dir. Tec: U Win Mg M.I.R.E.
STATIONS (System Marconi):

Call	kc	m	kW	Call	kc	m	kW	Call	kc	m	kW
XZK	955[1]	314.0	50	XZK9	5040[1]	59.52	50	XZK3	6035[1]	49.71	50
XZK8	1150[2]	261.0	5	XZK2	4795[2]	62.57	50	XZK4	7120[1]	42.13	50

FM: 100/102/104/106Mc 0.25kW. [1] Prgr. I. [2] Prgr.II.
HOME SCE:
Prgr. I: Burmese: 00.45–02.00(Sun 07.00) on 955/6035kc, 04.30–07.00 on 955/7120kc, 11.00–14.15 on 955/5040kc. N: 01.00, 06.30, 13.15 – **Wrp:** 13.28 – **Folklore Music:** Sun, Tues, Thurs 13.30.
English: 02.00–02.30 on 955/6035kc, 07.00–07.30 on 955/7120kc, 14.15–15.30 on 955/5040kc. N: 02.00, 15.00 – **Mbg:** Wed, Fri 14.30. Sun 02.10 – **L.L:** Wed 14.15.
Hindustani: 02.30–02.45 on 955/6035kc. N: 02.37(W).
Prgr. II (Burmese): 11.00–15.00 on 1150/4795kc.
ANN: E: "This is the Burma Broadc. Sce". Burmese: "Myanma Athan Hma Athan Hlwint Nay Barthe" – **INT-SIG:** Eric Coates' March "Calling all workers" – V. by QSL-card. Rp – **PUB:** "The Listener" (bi monthly) in Burmese.

CAMBODIA

L.T: GMT+7 h – **Pr.L:** Cambodian, French.

RADIO CAMBODGE (Go.)
AD: D 00.00–01.30 – **ADDR:** 28 Ave Preah Mohaksatryany Kossomak, Phnom Penh. **Te:** 3958. **Cable:** Miformation – **L.P:** Dir. Gen: S. Kean. St. Dir: L. K. Huy. Dir. Tec: C. Chhaum.
STATIONS:
1410kc 213.0m 20kW – 6090kc 49.26m 15kW – 9695kc 30.94 m 50kW – 11940kc 25.13m 50kW – 17710kc 16.94m 50kW.
Nippon Electric Co, Ltd. Japan: delivered 5kW mw-tr, antennas, studio equip. **Brown Boveri, Switzerland:** 2×10kW sw-tr's.
HOME SCE. on 1410/6090kc: 22.30–17.00. **N: Cambodian:** 23.00, 05.00, 07.00, 12.00. **French:** 23.15, 05.15, 12.45. **English:** 05.30, 12.25. **Wrp:** D 13.00 – **L.L:** (English) Tues, Fri 11.45–12.00.
FOREIGN SCE: 01.30–02.30 on 17710kc, 03.00–04.00 on 11940kc, 05.30–06.00 on 6090kc, 13.00–15.00 on 9695kc.
ANN: **F:** "Ici Phnom-Penh, Radiodiff. Nationale Khmere". **E:** "This is Phnom Penh the Voice of Cambodia" – V. by letter.

CEYLON

L.T: GMT+5½ h – **Pr.L:** English, Sinhalese, Tamil.

RADIO CEYLON (Go, Comm.)
FI: By state, licenses, adv's – **ADDR:** Dept. of Broadc, P.O. Box 574, Colombo 7. **Cable:** Radceylon. **Te:** 91234 – **L.P:** Dir. Gen: S. B. Senanayake. Asst. Dir. Gen: V. Panditha. Chief Eng: N. S. Wickremasinghe. Dir. Nat. Sce: K. H. J. Wijaydasa. Dir. Comm. Sce: L. R. Wijemanne.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
540	555.5	0.25	4900	61.22	10	9667	31.03	100
640	469.0	0.25	5065	59.19	10	9720	30.86	35
700	428.0	15	6004	49.95	7.5	11800	25.42	35
870	344.8	0.25	6075	49.38	7.5	15205	19.07	35
1030	294.0	20	6185	48.50	7.5	15335	19.56	100
4870	61.60	7.5	7190	41.72	10	17820	16.84	35

NATIONAL SERVICE
English: D: 11.30–17.30 on 920/5020kc. Sun: 04.30–07.30 on 920/6185kc – **N, Wrp:** W: 12.45, 15.45 – **L.L:** Thurs 14.30 (Sinhalese) – **Foreign Affairs:** Sun 15.15 – **Buddhism:** Tues, Thurs 14.30 – **Christianity:** Sun 13.30.
Sinhalese: On 700/4900kc: W 01.00–03.00; on 700/6075kc: W 06.30–08.00; on 700/4900kc: Sun 01.00–08.00, D 11.00–17.00 – **N:** 01.30, 07.15, 12.30, 15.30 – **Folk Music:** W 02.30, Wed 13.15, Sat 13.45, Sun 03.15 – **Sandya Sevaya:** D 18.30–21.30 on 1030/5065kc.
TO SO. EA. ASIA in English, Sinhalese, Tamil: On 17820kc D 09.15–10.15 – **Home and Foreign N.** (from Ceylon): D 09.30 (English), Thurs 09.45 (Hindi), Sat 09.55 (Tamil).
ANN: E: "This is the National Sce. of R. Ceylon". Tamil: "Illankai Vanoli – Thesiya Oliparappu". Sinhalese: "Me Lanka Guwan Viduliye Suvadeshiya Sevayai". "Me Lanka Guwan Viduliye Sandya Sevayai" – **INT-SIG:** All four sce's open with "National Drums" ("Magul Bera") and followed by "Jaya Mangala Gatha" and close with National Anthem ("Sri Lanka Matha").

EXTERNAL SERVICES in English:
To Europe, No. Africa and M. East: D 06.30-07.30 on 15335kc – **To So. Ea. Asia:** 09.15–10.15 on 17820kc.
ANN: "This is the External Sce. of R. Ceylon broadc. to listeners in..".

COMMERCIAL SERVICE
To Ceylon in English, Sinhalese, Tamil:
Sinhalese: On 640/4870kc: D: 01.30–03.00, 05.30–07.30. On 640/6004kc: D 03.00–04.30, Sat/Sun 07.30–10.30. On 920/6185kc: W 07.30–10.30. On 920/5020kc: W 10.30–11.30. **N:** D: 01.45, 07.15 – **Tamil:** On 640/6004kc: D 04.30–05.30. On 640/4870kc: W 09.30–12.30, Sat/Sun 10.30–12.30.
English: On 920/5020kc: D 01.30–03.00, Sat/Sun 10.30–11.00. On 920/6185kc: D 03.00–04.30, Sat/Sun 07.30–10.30. On 640/6004kc: W 07.30–09.30. On 640/4870kc: D 12.30–17.30. **N:** D: 02.00, 07.45, 12.45 – **Request Prgr:** Sun 08.30–11.30 – **Greetings Prgr:** W 13.00 – **L.L:** Fri 01.30 (Sinhalese).
To Asia in English, Hindi, Tamil:
English: 01.30–03.30 on 9667/15205kc; 12.30–16.45 on 9667kc – **N:** 02.00, 13.00 (BBC) – **Home N:** 13.10 – **Choice of the People:** W 13.15.
Hindi, Tamil: 01.30–04.30(Sun 07.30) on 7190/9720/11800kc.
ANN: E: "This is the Comm. Sce. of R. Ceylon". Sinhalese: "Me Landa Velanda Guwan Viduli Sewayai". Tamil: "Illankai Vanoli Varthaga Oliparappu". Hindi: "Yeh R. Ceylon Ka Vyapaar Vibhag Hai" – **INT-SIG:** Opens and closes with an oriental folk theme – Gajaga Vannama – V. by QSL-card or letter. Re. in E to be addressed to Listener Research Officer. Records accepted – **PUB:** R. Times (fortnightly).

VOICE OF AMERICA RADIO STATION IN CEYLON

ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS: Colombo 35kW: 01.00–03.30, 12.00–19.00.

kc	m	kc	m	kc	m
7110	42.19	11835	25.35	15265	19.66
7275	41.24	11920	25.17	15415	19.46

01.00–03.30 on 7275/11835kc, 12.00–18.00 on 7110/11835/15415kc, 18.00–18.30 on 15265kc, 18.30–19.00 on 11920/15265kc.

01.00–03.30	English	15.30–16.00	Hindi
12.00–13.30	English	16.00–16.30	English (7110)
13.30–14.00	English (7110)		Urdu (11835, 15415)
13.30–14.00	W. Bengali (11835, 15415)	16.30–18.00	English
		16.30–18.00	Music USA (7110)
14.00–14.30	English	18.00–18.30	English to Africa (15265)
14.30–15.00	E. Bengali (11835, 15415), Tamil(7110)	18.30–19.00	Hindi to Ea. Af. (11920, 15265)
15.00–15.30	English (7110, 15415), Urdu (11835)		

ANN: "This is Colombo relaying Voice of America Programs" – **INT-SIG:** Choir of brass playing a 10 note version of "Columbia, the Gem of the Ocean". See USA – V. by QSL-card.

THE PEOPLE'S REPUBLIC OF CHINA

L.T: GMT+8 h (Urumchi: GMT+6 h) – **Pr.L:** Chinese. **ADDR:** Broadc. Adm, Fu Hsin Men, Peking – **L.P:** Dir. Gen: M. Yi.

HOME SERVICE
CENTRAL PEOPLE'S BROADC. ST:
Medium Waves:

kc	kc	kc	kc	kc	kc	kc	kc	kc	kc	kc	kc
540	600	660	750	820	910	1020	1090	1210	1290	1400	1480
560	610	690	760	830	960	1030	1140	1230	1330	1450	1500
570	630	710	780	850	980	1050	1150	1250	1350	1470	1510
590	640	720	790	890	1000	1070	1160	1280	1370		

Short Waves:

kc	m	kc	m	kc	m	kc	m	kc	m
3225	93.05	6212	48.29	9020	33.26	11290	26.57	15300	19.61
3290	91.90	6225	48.19	9064	33.09	11330	26.47	15313	19.59
3390	88.50	6595	45.48	9170	32.70	11455	26.19	15445	19.43
3830	78.33	6790	44.18	9340	32.12	11515	26.05	15480	19.38
3915	76.63	6810	44.05	9570	31.35	11630	25.79	15550	19.29
3985	75.28	6890	43.54	9620	31.19	11660	25.73	15590	19.24
4250	70.59	6995	42.89	9670	31.02	11675	25.70	15610	19.22
4460	67.26	7065	42.46	9710	30.90	11690	25.66	15710	19.10
4500	66.67	7100	42.45	9717	30.88	11725	25.59	15880	18.89
5075	59.13	7170	41.84	9735	30.82	11860	25.30	17450	17.19
5125	58.54	7195	41.70	9765	30.72	11910	25.19	17490	17.15
5320	56.39	7240	41.44	9860	30.42	11925	25.16	17533	17.11
5535	54.10	7265	41.29	9920	30.24	11935	25.14	17605	17.04
5915	50.72	7305	41.07	9945	30.17	15030	19.96	17635	17.01
6065	49.46	7370	40.71	9972	30.08	15175	19.77	17780	16.87
6100	49.18	7500	40.00	10260	29.24	15240	19.69	17880	16.78
6155	48.74	7620	39.37	11100	27.03	15290	19.62	17900	16.76

FIRST PRGR: On 540, 560, 570, 630, 640, 660, 690, 760, 830, 850, 890, 960, 980, 1020, 1070, 1140, 1250, 1280, 1290, 1330, 1370, 1400kc and in 93–76–67–49–41–31–25–19–16mb:
21.20–16.20 (Tues 21.20–06.00, 08.15–16.20) – **N:** 21.30–21.45, 22.30–23.00, 23.30–23.45 (W) 00.00–00.05, 02.00–02.15, 04.30–04.45, 08.00–08.05, 10.00–10.15, 12.10–12.25, 12.30–13.00, 14.00–14.15, 15.00–15.15, 16.00–16.20.
SECOND PRGR: On 600, 610, 710, 720, 1160, 1250kc and in 91–76–59–49–41–31–25–19–16mb:
21.50–02.30, 03.55–06.00, 08.35–16.30 (Sun 21.50–16.30, Tues 21.50–02.30, 03.55–00.30) – **N:** 22.00–22.15, 23.00–23.30, 00.00–02.30, (Dictation, exc. Sun) 05.00–05.15 (exc. Sun) 15.00–16.30 (Dictation).
THIRD PRGR: On 1000, 1150, 1160kc and in 67–54–44–26mb: 00.50–06.00 (Sun), 09.40–15.00. **N:** 11.25–11.30.
FOURTH PRGR. (to the capital): 820kc: 22.35–02.45, 04.00–05.30, 07.55–15.15. 1210kc: 05.55–14.00. 1350kc: 00.00–04.00, 06.00–10.30. 1500kc: 22.10–03.25, 04.30–10.55, 11.00–13.40.
TO TAIWAN: On 590, 660, 750, 780, 790, 850, 910, 1030, 1050, 1090, 1230, 1250, 1400, 1450, 1480, 1510kc and in 70–58–44–40–32–19–17mb: 20.55–01.35, 02.55–06.05 (Sun 02.55–07.05), 08.25–17.05.
N: Standard Chinese: 22.00–22.15, 23.00–23.10, 01.00–01.10, 04.00–04.10, 05.00–05.15, 10.00–10.10, 11.00–11.15, 12.00–12.10, 14.00–14.15, 15.00–15.10, 16.00–16.15. Amoy: 21.00–22.00, 00.00–00.10, 03.00–04.00, 08.30–09.30, 13.00–14.00. Hakka: 09.30–09.40.

LOCAL STATIONS

Name	kc	Name	kc
Shanghai	850, 990, 1110, 1210, 1300, 1500	Chingshow	1410
		Fushin	1470
Hopei	780, 850, 1080, 1280, 1330, 1440, 1470	Fushun	850, 1520
		Lushun-Dalien	690, 830
		Penhsi	1310
Tientsin	870, 950, 1070, 1390, 1520	Yingkow	1090
		Kirin	580, 1130
Chinhuangtao	1370	Changchun	1330, 1450
Shichiachuang	1050	Baicheng	1320
Tangshan	810, 1450	Kirinshi	930, 1600
Shansi	1100, 1530	Tunghua	910
Inner		Yenpien	1050
Mongolia A	960, 1460, **3970, 4068, 6840, 6974, 9365, 9472, 11040**	Heilungkiang	270, 620, 1110 1410, 1530
		Harbin	660, 970, 1400
Inner		Chianmuszu	670, 1590
Mongolia B	1070, 1360, **3900, 4000**	Ichun	910
		Mutangkiang	680
Bayinor	1270, **4000**	Tsitsihar	740
Chaowut	1580	**Shensi**	900, 1350, **6176**
Chirim	1350	Sian	680, 1370, 1490
Paotow	670	**Kansu**	860, **6155, 7324**
Silingol	1310, **4525**	Kannan	1330
Ulanchap	1540	Yumen	1310
Liaoning	218, 1240	Pingliang	1550
Shenyang	690, 790, 1440	Tianshui	1270
Anshan	950, 1070	Ninghsia	1130, 1290
Antung	890		

The Broadcasting Centre, Peking

Listen to

RADIO PEKING

China

Name	kc	Name	kc
Chinghai	800, 1250, **6260, 6500, 9500**	Honan	1420
Singkiang	550, 740, 910, **4220, 4500, 4770, 6280, 7050, 7385, 9470, 10245**	Hupeh	770
		Wuhan	1050, 1370
		Hwangshih	1470
		Hunan	1260, 4990
		Hengyang	1350
Shantung	920, **2350**	Kiangsi	840
Tsinan	1310	Chingtechen	1400
Tsingtao	850, 1380	Kwangtung	1060, 1340
Yentai	1400	Canton	790, 890, 1400
Kiangsu	700	Chankiang	1290
Nanking	870	Hainan	950
Hsuchow	1450	Swatow	1080
Nantung	1440	**Kwangsi**	620, 1320, 1330, 1390, 1410, 1450, **5010, 5920**
Wusih	1400		
Anhwei	940		
Wuhu	1490	**Kweichow**	1030, **3260**
Chekiang	800, 1350, **2475**	**Szechuan**	1220, **7225**
Chowshan	680	Chengtu	750
Ningpo	890	Chungking	1080, 1310
Wenchow	1570	Tsukung	1490
Fukien	860, 880, 930, 1210, 1430, **2340, 4980, 5040**	Yunnan	820, 1380, **6937, 9990**
		Tibet	590, 4035, 5935, 9490
Foochow	1330, 1370		
Amoy	1110		

FOREIGN SERVICE

MediumWaves: 1020kc 294m, 1040kc 289m, 1190kc 252m, 1300kc 231m.

Short Waves:

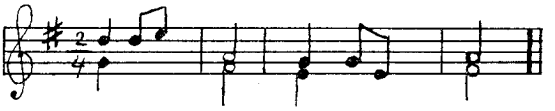
kc	m	kc	m	kc	m	kc	m	kc	m	kc	m
4020	74.63	6290	47.70	7370	40.71	11445	26.21	15140	19.82		
4910	61.10	6325	47.43	7450	40.27	11505	26.08	15150	19.80		
5075	59.11	6345	47.28	7480	40.11	11650	25.75	15190	19.75		
5145	58.31	6860	43.72	9457	31.73	11675	25.70	15210	19.72		
5860	51.20	6890	43.54	9480	31.65	11685	25.67	15220	19.71		
5880	51.02	6955	43.13	9490	31.61	11690	25.66	15235	19.69		
5915	50.71	7035	42.64	9500	31.58	11715	25.61	15250	19.67		
5935	50.55	7060	42.49	9510	31.55	11730	25.58	15260	19.66		
5950	50.42	7065	42.46	9550	31.41	11740	25.55	15270	19.65		
5970	50.25	7080	42.37	9555	31.40	11750	25.53	15290	19.62		
5985	50.13	7095	42.28	9570	31.35	11780	25.47	15345	19.55		
5990	50.08	7115	42.16	9585	31.30	11800	25.42	15370	19.52		
6000	50.00	7125	42.11	9590	31.28	11820	25.38	15417	19.46		
6025	49.79	7135	42.05	9595	31.27	11860	25.30	15430	19.44		
6035	49.71	7150	41.96	9600	31.25	11885	25.24	15500	19.35		
6065	49.46	7160	41.90	9650	31.09	11910	25.19	15520	19.33		
6080	49.34	7180	41.78	9660	31.06	11945	25.12	15670	19.15		
6120	49.02	7200	41.67	9665	31.04	11955	25.09	17675	16.97		
6125	48.98	7205	41.67	9690	30.96	11965	25.07	17680	16.97		
6135	48.90	7210	41.61	9755	30.76	11975	25.05	17720	16.93		
6145	48.82	7230	41.49	9775	30.69	11980	25.04	17730	16.92		
6150	48.78	7265	41.29	9785	30.66	12010	24.98	17745	16.91		
6155	48.74	7270	41.27	9800	30.62	12055	24.88	17765	16.89		
6170	48.62	7295	41.12	9860	30.43	15030	19.96	17810	16.84		
6180	48.54	7315	41.01	9880	30.36	15060	19.92	17835	16.82		
6200	48.39	7325	40.96	9920	30.24	15080	19.89	17860	16.80		
6210	48.31	7335	40.90	9945	30.17	15095	19.87	17885	16.78		
6270	47.85	7350	40.82	9965	30.11	15115	19.85	17900	16.76		

I=Korea; II=Japan; III=Philippines; IV=So. Ea. Asia; V=So. Asia; VI=We. Asia; VII=No. Africa; VIII=Ea. Africa; IX=So. Africa; X=We. Africa; XI=Europe; XII=Australia/New Zealand; XIII=Ea. No. America; XIV=We. No. America; XV=So. America; XVI=C. America.

Languages	Times	Areas	Winter-Spring 1963/64 mb	Summer/Autum 1964 mb
Amoy:	23.30–24.00	IV	41, 31, 25, 19	31, 25, 19
	12.00–13.00	III, IV	50, 41, 31, 25, 19	41, 31, 25, 19
Arabic:	16.30–17.30	VI, VII	50, 40, 31	40, 31, 25
	18.30–19.30	VI, VII	50, 40, 31	40, 31, 25
Burmese:	00.30–01.00	IV	31, 25, 19	31, 25, 19
	11.30–12.00	IV	42, 31, 25, 19	31, 25, 19
	13.00–13.30	IV	252	252
	14.00–14.30	IV	42, 31, 25	42, 31, 25, 19
	14.30–15.00	IV	252	252
Cambodian:	10.30–11.00	IV	42, 31, 25, 19	31, 25, 19
	12.00–13.00	IV	231, 42, 31, 25, 19	231, 31, 25, 19
	14.30–15.00	IV	42, 31, 25, 19	42, 31, 25, 19
Cantonese:	17.00–18.00	V,VIII,IX	48, 42, 31, 25	48, 42, 31, 25
	23.00–23.30	IV	49, 41, 31, 25	49, 41, 31, 25
	01.00–02.00	XIII,XV,XVI	40, 31, 25, 19	31, 25, 19
	03.00–04.00	XIV	40, 31, 25, 19	31, 25, 19, 16
Cantonese:	10.00–11.00	XII	31, 25, 19	31, 25, 19
	11.00–12.00	IV	50, 42, 31, 25, 19	31, 25, 19
Chaochou:	00.30–01.00	IV	31, 25, 19	25, 19
	14.00–15.00	IV	50, 42, 31, 25	42, 31, 25, 19
English:	16.00–17.00	V	252	252
	16.00–18.00	VIII, IX	49, 41, 31, 25	41, 31, 25, 19
	18.00–19.00	VII, X	48, 41, 31, 25	48, 41, 31, 25
	20.30–22.30	XI	48, 42, 31	48, 42, 31, 25
	21.30–22.30	X, VII	50, 41, 31	50, 41, 31, 25
	01.00–03.00	XIII	42, 31, 25, 19	42, 31, 25, 19
	03.00–05.00	XIV	42, 31, 25	31, 25, 19, 16
	08.30–10.30	XII	31, 25, 19, 16	31, 25, 19, 16
	12.00–13.00	IV	252, 42, 31, 25, 19	252, 31, 25, 19
	14.00–16.00	V	49, 41, 31, 25	41, 31, 25, 19
French:	18.30–19.30	VII,X,XI	49, 41, 31	41, 31, 25
	19.30–20.30	XI,VII,X	49, 41, 31	41, 31, 25
	20.30–21.30	VII,X,XI	49, 41, 31	41, 31, 25
	21.30–22.30	XI,VII,X	49, 41, 31	41, 31, 25
German:	18.00–19.00	XI	48, 42, 31	48, 42, 31, 25
	19.30–20.30	XI	48, 42, 31	48, 42, 31, 25
Hakka:	17.00–18.00	V	252	252
	00.00–00.30	IV	42, 31, 25, 19	31, 25, 19
	10.00–11.00	IV	50, 42, 31, 25, 19	42, 31, 25, 19
Hausa:	20.30–21.30	X	41, 31	41, 31, 25
Hindi:	15.00–16.00	V	252, 48, 42, 30, 25	252, 48, 42, 30 25, 19
	16.00–17.00	V	48, 42, 30, 25	48, 42, 30, 25 19
Indonesian:	08.30–09.30	IV	30, 25, 19	30, 25, 19
	10.30–11.30	IV	41, 30, 25, 19	30, 25, 19
	12.00–12.30	IV	41, 30, 25, 19	30, 25, 19
	13.00–13.30	IV	41, 30, 25, 19	41, 30, 25, 19
Italian:	19.30–20.30	XI	48, 41, 30	48, 41, 30, 25
Japanese:	21.00–21.30	II	294, 289, 75, 50	294, 289, 50, 41, 31
	09.00–10.00	II	294, 289, 75, 50, 41	294, 289, 50, 41, 31, 25
	11.00–12.00	II	294, 289, 75, 50, 41	294, 289, 50 41, 31
	12.30–13.30	II	294, 289, 75, 50, 41	294, 289, 50, 41, 31
	14.00–15.00	II	294, 289, 75, 50	294, 289, 50, 41
Korean:	10.00–11.00	I	294, 289, 75, 50, 41	294, 289, 75, 50, 41
	12.00–12.30	I	294, 289, 75, 50, 41	294, 289, 75, 50, 41
	13.30–14.00	I	294, 289, 75, 50	294, 289, 75, 50
Laotian:	00.00–00.30	IV	31, 25, 19	31, 25, 19
	11.00–11.30	IV	252, 231, 42, 31 25, 19	252, 231, 31, 25 19
	13.00–14.00	IV	42, 31, 25	42, 31, 25, 19
	14.30–15.00	IV	231	231
Malay:	10.00–10.30	IV	41, 31, 25, 19	31, 25, 19
	13.00–14.00	IV	41, 31, 25, 19	41, 31, 25, 19
	14.30–15.00	IV	41, 31, 25, 19	41, 31, 25, 19
Persian:	15.30–16.00	IV	50, 41, 31	41, 31, 25
	18.00–18.30	IV	50, 41, 31	41, 31, 25
Portuguese:	19.00–19.30	IX	48, 42, 31	48, 42, 31, 25
	20.00–20.30	X, XI	49, 41, 31	49, 41, 31, 25
	22.00–22.30	XV	48, 41, 31, 25	41, 31, 25, 19
	23.00–23.30	XV	48, 41, 31, 25	41, 31, 25 19,
	00.00–00.30	XV	48, 41, 31, 25	41, 31, 25, 19
Russian:	03.30–04.30	XI	41, 30	41, 30, 25
	10.00–12.00	XI	50, 41, 31	50, 41, 31
	15.00–20.00	XI	48, 41, 30	48, 41, 30
	21.30–22.30	XI	48, 42, 30	42, 30, 25
Serbo-Croatian:	19.00–19.30	XI	48, 41, 30	48, 41, 30, 25
	21.30–22.00	XI	48, 41, 30	48, 41, 30, 25
Spanish:	20.30–21.30	XI	48, 41, 31	48, 41, 31, 25
	23.00–24.00	XV	42, 31, 25	42, 31, 25, 19
	00.00–01.00	XV	42, 31, 25	42, 31, 25, 19
	01.00–02.00	XVI, XV	42, 31, 25, 19	42, 31, 25, 19 16
	02.00–03.00	XVI, XV	42, 31, 25, 19	42, 31, 25, 19 16
Standard Chinese:	17.30–18.30	VI,VII,X,XI	49, 42, 31	42, 31, 25
	20.00–21.00	XI,X,VII,VI	48, 41, 31	48, 41, 31, 25
	22.30–23.00	IV	49, 41, 31, 25	49, 41, 31, 25
	02.00–03.00	XIII	40, 31, 25, 19	40, 31, 25, 19
	04.00–05.00	XIV	42, 31, 25, 19	31, 25, 19, 16
	09.00–10.00	IV	50, 41, 31, 25, 19	31, 25, 19
	13.00–14.00	IV	50, 42, 31, 25, 19	42, 31, 25, 19
	15.00–16.00	V	49, 42, 31	42, 31, 25

Swahili:	16.00–16.30	VIII	49, 41, 31	41, 31, 25, 19
	17.00–17.30	VIII	49, 41, 31	41, 31, 25, 19
Tamil:	14.30–15.00	V	49, 42, 31	42, 31, 25
	16.30–17.00	V	49, 42, 31	42, 31, 25
Thai:	23.30–24.00	IV	31, 25, 19	31, 25, 19
	11.30–12.00	IV	252, 31, 25, 19	252, 31, 25, 19
	13.30–14.30	IV	252, 42, 31, 25, 19	252, 42, 31, 25 19
Turkish:	17.30–18.00	VI	50, 41, 31	41, 31, 25
	19.30–20.00	VI	50, 41, 31	41, 31, 25
Vietnamese:	22.30–23.30	IV	252, 231, 49, 42	252, 231, 42, 30, 25
	11.30–12.00	IV	231, 41, 30, 25	231, 30, 25, 19
	12.30–13.00	IV	41, 30, 25	30, 25, 19
	13.00–13.30	IV	231	231
	13.30–14.30	IV	231, 41, 30, 25	231, 41, 30, 25
	15.00–15.30	IV	41, 31, 25	41, 31, 25

NEWS: Beginning 10–15min. of each prgr.
ANN: E: "This is Radio Peking" – F: "Ici Radio Pekin" – G:"Hier ist Radio Pekin" – P: "Aqui Pequim" – R: "Govorit Pekin" – Sp: "Aqui Pekin".
INT-SIG: – V. by QSL-card or letter. Records accepted.



TAIWAN (Rep. of China)

BROADCASTING CORPORATION OF CHINA

(Priv. enterprise under Go. contract).
ADDR: New Park, Taipei. **Cable:** "Broadcast". **Te:** 37511 – **L.P:** Pres: Han-Chao Liang. Man. Dir: Jimmy Wei. Dir. Tec: K. S. Yeh. Dir. Prgr: J. S. Li.

STATIONS: Medium Waves:

Call	kc	kW	Call	kc	kW	Call	kc	kW
BED34	660	20	BED26	1040	1	BED23	1380	
BED58	720	10	BED43	1060		BED65	1380	1
BED2	750	125	BED57	1070	20	BED87	1390	
BED28	820		BED72	1120		BED54	1410	1
BED27	860	1	BED89	1160		BED80	1410	
BED25	860	1	BED86	1160		BED82	1460	
BED24	890	1	BED32	1190	1	BED81	1470	1
BED85	890		BED88	1200		BED48	1450	1
BED55	960	20	BED63	1210	0.5	BED83	1500	
BED62	1000		BED79	1220		BED78	1540	
BED53	1020	1	BED47	1280	1			

Short Waves:

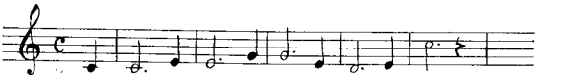
Call	kc	m	kW	Call	kc	m	kW
BED59	3215	93.31	3.5	BED22	9690	30.96	
BED31	3230	92.88	20	BED8	9720	30.86	50
BED20	3335	89.96	20	BED75	11725	25.59	20
BED67	3965	75.66		BED69	11825	25.37	50
BED30	5980	50.17	1	BED45	11860	25.30	50
BED9	6040	49.67	20	BED44	11905	25.21	20
BED29	6095	49.22	20	BED37	11970	25.06	20
BED7	7130	42.08	20	BED5	15225	19.70	50
BED35	7150	41.96	20	BED36	15280	19.63	20
BED76	7230	41.49		BED38	15320	19.58	20
BED21	7250	41.38		BED49	15345	19.55	25
BED51	7255	41.35	20	BED71	15395	19.49	20
BED33	9630	31.15	20	BED56	17785	16.87	25
BED91	9655	31.07	20	BED40	17890	16.77	50
BED73	9685	30.98	20				

HOME SCE. in Chinese:
1st Net: 660kc 21.00–16.00 – **2nd Net:** 960kc 21.00–22.00, 00.00–02.00, 03.55–16.00 – **3rd Net:** 890kc 21.00–01.00, 04.00–15.00.

FOREIGN SCE.
I=No. Am., Japan; II=Ea. Asia; III=Korea; IV=Japan/Korea; V=Australia/N.Z; VI=Tibet; VII=Madagascar.

Times	Languages	Areas	kc
02.50–03.50	English	I	6095, 7130, 11825, 11860, 15345, 17890
04.00–04.30	Amoy	II	6095, 7130
04.30–05.30	Cantonese	II	
05.00–05.30	Hakka	II	11825, 11860
05.30–06.00	Chauchow	II	17890
	Vietnamese (Sun)	II	
09.25–09.55	Korean	III	6095, 7130
10.10–10.55	English	IV	6095, 7130
10.55–11.25	Japanese	IV	11860, 11725
11.30–12.30	Mandarin	II+V	6095, 7130
12.30–13.00	Dragon Show	II+V	11860, 11725
13.00–13.25	Chauchow	II+V	
13.25–13.50	Hakka	II	6095, 7130, 9685
	Vietnamese (Sun)	II	11825, 11860
13.35–13.50	Tibetan	VI	11725
13.50–15.50	Indonesian	II	6095
13.50–15.00	Cantonese	II	7130, 9685
15.00–15.30	Amoy	II	11825
15.30–16.15	English	II	
17.15–18.00	Cantonese	VII	7130, 9685
18.00–18.20	Arabic	VII	11825

N: First 10 min's of each prgr.
ANN: Home Sce: "This is BCC the 1st (2nd, 3rd...) net. (in Chinese): For Overseas: E. "This is the Voice of Free China (a call of freedom in Asia)".
INT-SIG:



V. by letter or QSL-card. Re. in English & Chinese. Records accepted.
PUB: Prgr. sched. free.

CHENG SHENG BROADCASTING CORP. (Comm.)

ADDR: 433 Chungking North Rd, Sec. 3, Taipei. **Cable:** CSBCOD. **Te:** 48281 – **L.P:** Pres: C. Y. Peng. Gen. Mgr: S. H. Shia. Dir. Tec: G. D. Tue.
STATIONS:

	kc	kW		kc	kW		kc	kW
1) BEV34	820	1	BEV59	850	1	6) BEV60	1020	1
2) BEV35	1340	1	4) BEV36	1130	1	7) BEV37	1270	1
3) BEV58	1290	1	5) BEV72	930	1			

1) **Cheng Sheng The First Dept,** Taipei – 2) **Cheng Sheng The Second Dept,** Taipei – 3) **BEV58: The Farmers Broadc. St, First Dept,** Taichung. **BEV59: The Farmers Broadc. St, Second Dept,** Taichung – 4) **Yun Lin Broadc. St,** Yun-Lin – 5) **Kung Yi Braodc. St,** Chiayi – 6) **Cheng Yen Broadc. St,** Kaohsiung – 7) **Cheng Tung St.** Taitung.
HOME SCE: 1) 22.05–23.00, 11.00–16.55 – **N: Mandarin:** 12.00, 13.00, 14.00, 15.00, 16.00, 23.00. **Tibetan:** 16.45–16.55 – **For Overseas Chinese:** 11.05–12.00 – V. by letter. Records accepted.

FU HSING BROADCASTING STATION (Go.)

ADDR: P.O. Box 799, Taipei. **Te:** 43126.
HOME SCE. in Mandarin: Taipei: 21.50–06.30, 08.50–17.40 on 790, 910, 1430, 1510kc and BEH22 15175kc 19.77m 1kW or 15480kc 19.38m 1kW. **Taichung:** 910, 1090, 1230, 1430, 1510kc. **Kaohsiung:** 790, 1090, 1430, 1510kc. **Taitung:** 1090kc. **Ilan:** 1090kc. **Hualien:** 1230kc – V. by QSL-card. Rp.

POLICE BROADCASTING NETWORK (Go.)

ADDR: No. 1, Tientsin Str, Taipei. **Te:** 24761.

HOME SCE:		kc	m	kW	H of tr.
Taipei	BEP22	1260	238	10	W 22.00–01.30, 02.00–07.00, 08.30–17.00. Sun 23.30–17.00
–	BEP23	5960	50.34	1	
Hsinchu	BEP26	1120	267.8	1.5	
Changwa	BEP24	780	384.6	1.5	
Kaohsiung	BEP25	1120	267.8	1.5	

V. by QSL-card or letter.

TAIWAN COMM. BROADCASTING STATIONS ASSOCIATION

ADDR: 22 Lane 81, Mayo Str. Taipei – **Short Wave:** BEG23 7180kc 41.78m 1kW: **You Sze Broadc. St,** 49 Kun Ming St. Taipei: 21.30–24.00, 02.30–05.00, 08.30–14.30+29 mw-st's not mentioned.

MILITARY BROADCASTING STATIONS (Go.)

ADDR: Military Broadc. Corps, Ministry of National Defense, Taipei. The Military Broadcasting Corps and The Air Force Broadc. St. are two different organizations. The first belongs to the Political Dept. og Ministry of National Defense, the latter to Headquarters of Chinese Air Force. They are without any relationship in their adm. and service.
STATIONS:

	Call	kc	m	kW		Call	kc	m	kW
1)	BEC22	1100	272	1.5		BEC32	690	434.8	1.5
	BEC23	1520	197.4	3	5)	BEC33	1350	222.2	1.5
	BEC24	**7215**	41.58	1.5		BEC34	**7270**	41.26	1.5
2)	BEC25	700	428.6	3	6)	BEC35	840	357.14	0.5
	BEC26	**6090**	49.26	3		BEC36	1330	225.6	1.5
3)	BEC27	1200	250.0	1.5		BEC37	**5970**	50.25	1.5
	BEC28	**7240**	41.44	1.5	7)	BEC38	1090	275.23	0.3
4)	BEC29	1250	240.0	1.5		BEC39	1490	201.34	3

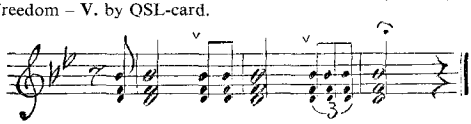
1) No. 3, Section 1, Hsinyi Road, Taipei: 22.00–24.00, 03.00–07.00, 09.00–16.00. V. by QSL-card – 2) Lanyealif, Shyhlin, Taipei: 22.00–03.00, 10.00–17.30 – 3) No. 3, Shyhfun Road, Taichung: 22.00–03.00,

09.00–16.30 – 4) No. 101, Third Jengjeng Road, Kaohsiung. V. by QSL-card – 5) No. 38, Sanmin Str, Hualien: 22.00–24.00, 03.00–07.00, 09.00–17.00 – 6) No. 40, New Mingdertsuen, Tsoying: 22.00–24.00, 03.00–07.00, 09.00–17.00. V. by QSL-card – 7) No. 14, Minsheng Road, Maagong, Penghwa.

AIR FORCE BROADCASTING STATION (Military)
FI: By Go – ADDR: 1st and 2nd Dept: 44 Section 2, Jen Ai Rd, Taipei. Te: 28981 – L.P: St. Dir: S. H. Hu. Dir. Tec: C. Y. Young.
STATIONS:

BEC70	980 kc 306.1 m 3.5 kW	BEC71	7260 kc 41.32 m 3.5 kW
BEC60	1440 – 208.3 – 1 –	BEC62	9745 – 30.76 – 3.5 –
BEC61	6105 – 49.14 – 7.5 –		

HOME SCE. in Mandarin: 1st Prgr. on 980/7260kc: 22.00–24.00, 04.00–06.00, 09.00–17.00 – N: 00.00, 04.10, 09.30, 15.00.
2nd Prgr. (for China Mainland) on 1440/6105/9745kc: D 20.55–24.00, 10.55–17.05 – N: 21.05.
ANN: "Voice of Chinese Air Force" – INT-SIG: (2nd Dept.) Sign of Freedom – V. by QSL-card.



PUB: Prgr. schedule free on request.

ARMED FORCES RADIO TAIWAN (U.S. Armed Forces)
ADDR: Box 13, APO63, San Francisco, California, USA. Te: 31375.
STATIONS: 1560kc 192m 5kW – 7215kc 41.58m 1kW – FM: 100.1Mc 0.4kW – D.Prgr's: English: 24 h – N. every h on the h.
ANN: "Armed Forces Radio Taiwan, in Taipei" followed by time announcement – V. by QSL-card.

CYPRUS

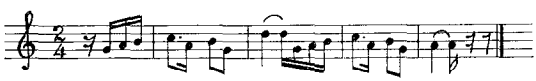
L.T: GMT+2 h – Pr.L: Greek, Turkish.
CYPRUS BROADCASTING CORPORATION (Go, Comm.)
FI: Go. subsidised, Comm. adv. income – AD: 30 min. d – ADDR: P.O. Box 824, Nicosia. Cable: Broadcasts. Te: 5231 – L.P: Dir. Gen: V. I. Markides. Chief Eng: P. T. Astreos.

STATIONS:	kc	m	kW		kc	m	kW
Nicosia	606	495	20	Paphos	915	326	2
Nicosia	692	434	20	Limassol	1484	202.2	0.5

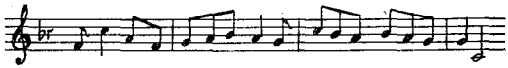
The Marconi Company Ltd, G.B. delivered 3×20kW mw-tr's.

HOME SERVICE

GREEK on 692/915/1484kc: W: 05.00(Su 04.30)–07.00(Su 06.30), 10.00–11.45, 15.00–21.00. Sun: 05.00(Su 04.30)–11.45, 15.00–21.00. N: 05.30(Su. 05.00), 11.30, 20.00.
TURKISH on 606kc: W: 05.00(Su. 04.30)–07.00(Su. 06.30), 10.00–11.45, 15.00–21.00. Sun: 05.00(Su. 04.30)–11.45, 15.00–21.00. N: 05.30(Su. 05.00), 11.30, 20.00.
ENGLISH on all freqs: D 11.45–13.00. N, Wrp: 12.00 – T.S: 6 pips before all Greek news.
ANN: Greek: "Radiofonikon Idryma Kyprou". Turkish: "Burasi Kibris Radyo Yayin Korporasyonu" – INT-SIG: Avkoritissa played *on Guitar* – V. *by letter. Records accepted.*



FORCES BROADCASTING SERVICE CYPRUS
FI: by the State (Brit. Go.) – ADDR: B.F.P.O. 53, Nicosia. Te: 3118 – L.P: Dir: R. W. Morgan. Sen. Eng: J. Bull. Prgr. Organizer: W. Toogood.
STATIONS: Nicosia 99.6Mc 20kW – Akrotiri 92.1Mc 20kW.
The Marconi Company Ltd, G.B. delivered 5kW tr. and studio equip.
D.PRGR. in English: W: 03.30–06.45, 11.00–21.00(Sat 22.00), Sun: 04.30–21.00. N: 04.00(W), 05.00, 06.00, 16.00, 18.00 – Wrp: 04.30(W), 05.59(Sun) and after N. 16.00 – Rlg: Sun: 06.15, 21.00, W: 04.15.
ANN: "This is the Forces Broadc. Sce, Cyprus" – INT-SIG: "Siegfrieds Journey to the Rhine" (Horn theme by Wagner) played on French Horn.



Close down theme: "Evening Hymn and Last Post" – V. by QSL-card. Records accepted – PUB: Prgr.sched. free. Rp.

BBC-EAST MEDITERRANEAN RELAY
Relays of the BBC Arabic Service and General Overseas Service (see page 101).

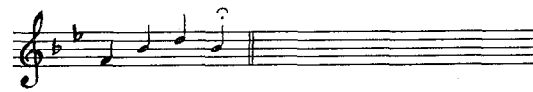
		kc and mb.
North Egypt, Jordan	03.30–08.00	638, 719
Lebanon, Syria, Israel	11.00–16.00	
Egypt, Jordan, North Arabia, Iraq, Syria, Cyrenaica	16.00–21.00	638, 719
Aden, Jordan, Arabia, Libya, Syria	03.45–05.45	6170
	11.00–21.00	6170
Sudan, Egypt	03.45–05.45	9650
	11.00–21.00	9650
Iraq, Persian Gulf	03.45–05.45	6120
	11.00–16.00	7140, 11720
	17.00–21.00	7140, 11720
Iraq, Persian Gulf (Persian)	16.15–17.00	7140

03.00–03.45**, 03.45–05.45*, 05.45–08.00**, 11.00–21.00*.
* Arabic. ** General Overseas Service.

HONG KONG (British)

L.T: GMT+8 h (Su: Apr-Oct.+9 h) – Pr.L: Chinese.
RADIO HONG KONG (Go.)
ADDR: Mercury House, P.O. Box 200, Hong Kong. Cable: Broadcasts. Te: 26822 – L.P: Dir. of Broadc: D. E. Brooks. Broadc. Eng: R. Winyard.
STATIONS: [1]640kc 468.7m 2kW – [3]3940kc 76.14m 25kW – [2]860kc 348.8m 2kW – [1]FM: 91.9Mc 50kW.
[1] Chinese Sce. [2] English Sce.
AKG, *Austria: Studio equip. (recorders, microphone)* – The Marconi Company, Ltd, G.B: 4×5kW tr's.
HOME SCE: English: 23.00–16.00 – N: 00.00, 05.15, 11.00 (BBC Newsreel), 15.00 (R. Australia) – Wrp: 23.58, 10.58, 13.13, 14.58.
Chinese: 23.00–16.00 – N: 00.00, 05.30, 10.00, 12.00*, 12.30* – Wrp: 23.58, 05.28, 11.58, 15.30. – * Rel. Far Eastern st. from London.
ANN: English: "This is R. Hong Kong". Chinese: "Ni do hai Heung Kong Kwong bor deen toy" – V. by QSL-card. Rp.

HONG KONG COMMERCIAL BROADCASTING CO.
FI: By adv – ADDR: P.O. Box 3000, Hong Kong. Cable: Radioads. Te: 36.223 – L.P: Man. Dir: G. Ho. Dir. Tec: W. S. Ip.
STATIONS:
1050 kc 286 m 2 kW: Cantonese – 1530 kc 196 m 2 kW: English 1232 – 243.5 – 2 – : Chinese.
HOME SCE. on all freq's: 23.00–16.00.
English: N: 00.00, 05.15, 10.00, 11.00, 12.00, 13.00, 14.00, 15.00 (Newsreel), 16.00 – Wrp: 00.10, 05.30, 08.30, 10.10, 12.15, 14.15, 16.00 – Cantonese: Wrp: 23.45, 00.00, 05.28, 12.30 (Sun), 13.30 (W), 15.00 – L.L: (English): W 23.30–23.45 – ANN: E: "Commercial Radio, Hong Kong" – INT-SIG: Chimes – V. by letter.



REDIFFUSION (HONG KONG) LTD. A subsidiary of Rediff-Ltd. London (Comm.) – FI: By subscription charges and adv – ADDR: P.O. Box 121, Rediffusion Hse, Gloucester Rd. Cable: Re. duffuse. Te: 762211 – 3 simultaneous wired broadc. networks. Originating own prgr's, also relay R. Hong Kong, BBC, etc. D. 23.00–16.00.

INDIA

L.T: GMT+5½ h – Pr.L: English, Dogri, Hindi, Tamil, Telugu, Assamese, Bengali, Gujarati, Kashmiri, Malayalam, Oriya, Punjabi, Sanskrit, Sindhi, Urdu, Kannada, Marathi.
ALL INDIA RADIO (Go.)
ADDR: Akashvani (AIR) Headquarters, Akashvani Bhavan, Parliament Str. New Delhi. Cable: "Airgeneral". Te: 30101 – L.P: Dir. Gen: B. P. Bhatt. Dept. Dir. Gen: Prgr: K. S. Mullick. Adm: S. Parameshwaran. Inspection: A. K. Sen. Dir. Prgr: Miss M. Masani. Chief Eng: M. L. Sastri. Dir. News Sce: M. V. Desai. Dir. External Sce: H. R. Luthra. Dir. Prgr. Planning: Dr. A. M. Natesh. Dir. Staff *Training: B. S. Arard. Dir. TV Center: R. Chander.*
STATIONS: Medium Waves:

North Regional	kc	m		kc	m
Delhi A	810	370.4	Jaipur B	1290	232.6
Delhi B	1070	280.4	Ajmer	600	500.0
Delhi C	1370	219.0	Indore A	650	461.5
Lucknow A	760	394.7	Indore B	1590	188.7
Lucknow C	1320	227.3	Bhopal	1520	197.4
Allahabad	950	315.8	Ranchi	560	535.7
Patna A	620	483.9	Varamasi	1240	241.9
Patna B	1500	200.0	Bikaner	1330	225.6
Jullundur	710	422.5	Kanpur	1440	206.9
Jaipur A	1480	202.7	Raipur	980	306.1

South Regional					
Madras A	720	416.7	Nagpur A	590	508.5
Madras B	1420	211.3	Nagpur B	660	434.5
Madras C	1550	193.5	Ahmedabad	850	352.9
Tiruchirapalli A	940	319.1	Baroda	850	352.9
Tiruchirapalli B	1480	202.7	Poona	780	384.6
Vijayawada A	840	357.1	Rajkot A	910	329.7
Vijayawada B	1500	200.0	Rajkot B	1420	211.3
Trivandrum	660	454.5	Panjum (Goa)	880	340.9
Kozhikode	680	411.2	Sangli	1250	240.0
Trichur	580	517.2	**East Regional**		
Hyderabad A	740	405.4	Calcutta A	670	447.8
Hyderabad C	1220	245.9	Calcutta B	1000	300.0
Bangalore A	610	491.8	Calcutta C	1540	194.8
Bangalore B	820	365.9	Cuttack A	965	310.9
Dhawar	1360	220.6	Cuttack B	1350	222.2
Vishakhapatnam	930	322.6	Gauhati A	730	411.0
Cuddapah	1190	25.21	Kohima	1490	201.3
West Regional			Sambalpur	860	348.8
Bombay A	1040	288.5	Siliguri	1560	192.3
Bombay B	550	545.5	Port Blair	1440	208.3
Bombay C	1230	243.9	Imphal	1390	215.8

Short Waves: Delhi VUD: 10/20/100kW:

kc	m	kc	m	kc	m	kc	m	kc	m
3295	91.05	6140	28.86	7250	41.38	10335	29.03	15130	19.83
3365	89.15	6180	48.54	7255	41.35	11710	25.62	15155	19.80
3905	76.82	6190	48.47	7290	41.15	11715	25.61	15170	19.78
3925	76.43	7105	42.22	9520	31.51	11770	25.49	15190	19.75
4760	63.03	7125	42.11	9530	31.48	11785	25.46	15225	19.70
4960	60.48	7140	42.02	9575	31.33	11790	25.45	15290	19.62
4962	60.45	7155	41.93	9600	31.25	11800	25.47	15310	19.60
5955	50.38	7165	41.87	9610	31.22	11810	25.40	15330	19.57
5975	50.21	7180	41.78	9615	31.20	11825	25.37	15380	19.51
5990	50.08	7185	41.75	9680	30.99	11830	25.36	17705	16.94
5995	50.04	7205	41.64	9690	30.96	11850	25.32	17735	16.92
6010	49.92	7225	41.52	9705	30.91	11875	25.26	17800	16.85
6045	49.63	7235	41.47	9740	30.80	11890	25.23	17820	16.84
6065	49.46	7205	41.38	9745	30.79	11900	25.21	17830	16.83
6085	49.30	7225	41.52	9765	30.72	11920	25.17	17855	16.80
6125	48.98	7235	41.47	9915	30.26	15105	19.86	21580	13.90

Lucknow (No. Reg. Sce) 10kW: 3205kc 93.60m – 4880kc 61.48m – 6170kc 48.62m. **Ranchi (No. Reg. Sce)** 2kW: 3268kc 91.80m. **Simla (No. Reg. Sce)** 2.5kW: 3223kc 93.09m – 6020kc 49.83m. **Bhopal (No. Reg. Sce)** 10kW: 3315kc 90.50m – 4820kc 62.24m – 5990kc 50.08m. **Madras (So. Reg. Sce):** VUM – 4920kc 60.98m – 7160kc 41.90m. **Hyderabad (So. Reg. Sce)** 10kW: 3355kc 89.42m – 4990kc 60.12m – 6120kc 49.02m – 7140kc 42.02m. **Bombay (West Reg. Sce)** VUB: 3295kc 91.05m – 4840kc 61.98m – 6150kc 48.58m – 7240kc 41.44m. **Calcutta (Ea. Reg. Sce):** VUC – 3305kc 90.77m – 4940kc 60.73m – 7210kc 41.61m. **Gauhati (Ea. Reg. Sce)** 10kW: 3235kc 92.74m – 3375kc 88.89m – 4775kc 62.83m – 5970kc 50.25m – 6130kc 48.94m. **Kurseong (Ea. Reg. Sce):** 3355kc 89.42m – 4895kc 61.29m – 6100kc 49.18m.

The Marconi Company Ltd. G.B, delivered: 1 × 100kW tr. to Bombay, Delhi, Madras.

Brown Boveri, Switzerland, delivered: 20kW mw-tr's to Delhi, Madras, Vijyawada, Indore, Ajmer, Trichur, Patna; 50kW tr. (Trichy), 100kW tr. (Delhi).

Nippon Electric Co. Ltd, Japan, delivered 2 × 2kW sw-tr's. 20 × 1, 32 × 10, 1 × 50, 1 × 100kW mw-tr's.

HOME SERVICES

NORTH REG. SCE (Hindi, Punjabi, English): Delhi A: 3365kc: Morning up to 02.15+Night. **4960kc:** Morning after 02.30. **6190kc:** Afternoon+Evening – **Lucknow: 3205kc:** Morning up to 02.15+Evening & Night. **4880kc:** After 02.30. **6170kc:** Afternoon – **Ranchi: 3268kc:** Evening+Night – **Simla: 3223kc:** Morning up to 03.30+Evening & Night. **6020kc:** Morning after 03.45 – **Bhopal: 3315kc:** Morning+Evening & Night. **5990kc:** Afternoon.

SOUTH REG. SCE. (Tamil, Telugu, Kannada, Malayalam, English): Madras: 4920kc: Morning+Evening. **7160kc:** Afternoon – **Hyderabad: 3355kc:** Morning upto 02.15. **4990kc:** Evening. **6120kc:** Morning after 02.30. **7140kc:** Afternoon.

WEST REG. SCE. (Gujerati, Marathi, Kannada, Hindi, English): Bombay A: 7240kc: Sun 04.15–06.30 – **Bombay B: 3295kc:** Morning upto 02.15. **4840kc:** Evening & Night. **6150kc:** 02.30–04.00. **7240kc:** Afternoon.

EAST REG. SCE. (Bengali, Oriya, Assamese, Hindi, English): Calcutta B: 4940kc: Morning. **7210kc:** Afternoon & Evening up to 12.40. **3305kc:** After 13.00+Night – **Gauhati A: 3375kc:** Morning upto 01.45+Evening & Night. **5970kc:** After 02.00+Afternoon – **Gauhati B: 4775kc:** Morning. **6130kc:** Afternoon upto 12.30. **3235kc:** Evening from 12.45 and Night – **Kurseong: 4895kc:** Morning. **6100kc:** Afternoon. **3355kc:** Evening & Night.

HOME NEWS in English (on shortwaves):
01.10–01.15: On 3365, 4960, 6190, 7125, 7250, 9705, 11825kc (Delhi); **02.30–02.45:** On 4760, 5990, 7105, 9610, 11710, 11920, 15310kc (Delhi),

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THE DIRECTOR OF EXTERNAL SERVICES

ALL INDIA RADIO

POST BOX 500

NEW DELHI (INDIA)

DA 63/6

3223 (Simla), 3315 (Bhopal), 4920 (Madras), 6120 (Hyderabad), 5970 (Gauhati), 3345 (Jammu), 3277kc (Srinagar);
08.00–08.10: On 6190, 7290, 9600, 9705, 11850, 11890, 15105, 17735kc (Delhi), 7160kc (Madras);
12.30–12.35: On 4960, 7185, 9705, 11875, 15330, 17820kc (Delhi), 4920kc (Madras);
15.30–15.45: On 3295, 3925, 4760, 4962, 5975, 6065, 7165, 7185, 9615, 10335kc (Delhi), 3268 (Ranchi), 3223 (Simla), 3315 (Bhopal), 4920 (Madras), 4990 (Hyderabad), 3375 (Gauhati), 3345 (Jammu), 3277 (Srinagar), 3355kc (Kurseong);
17.00–17.05(Sat 17.30–17.35): On 3365, 3925, 4760, 6065, 7165, 7185, 9615kc (Delhi).

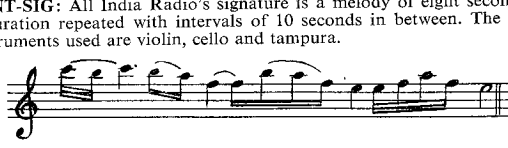
ALL INDIA VARIETY PRGR. (Vividh Bharati): Short Wave Service: 01.00–04.00 on 6035/6085kc, 05.30(Sun 04.45)–07.00 on 9550/7260, 08.30–09.30(Sun 10.00) on 7260/9550kc, 10.30–12.45 on 9550, 13.00–17.00(Sat 17.30) on 6085/9635kc.
FORCES PRGR. (in Hindi/Gorkhali): D 13.00–14.00 on 1070/3365/4760kc – **FOR NEFA:** 02.15–02.30 on 9705/11920kc.

EXTERNAL SERVICES

GENERAL SERVICE (for Indians Overseas):

So. Ea. Asia	L.	kc	N.
23.15–00.15	Hindi	3905/5955/9530/11710	23.20–23.30
00.15–01.15	Tamil	5955/9530/11710	00.20–00.30
11.30–12.30	Tamil	11720	
Ea. Africa, Mauritius			
03.45–04.15	Hindi	15130/17855	03.50–04.00
04.15–04.30	Gujarati	15130/17760	04.15–04.30
04.30–04.40	**English**	15130/17855	04.30–04.40
15.45–16.15	Swahili	11790/15105	
16.15–17.15	Hindi	11790/15105	
17.45–18.30	Gujarati	7125/9680/11790/11900	
18.30–18.40	Konkani	7125/9680/11790/11900	
18.40–19.30	English	7125/9680/11790/11900	
Fiji Islands			
07.00–08.00	Hindi	15290/17705	
EASTERN SERVICE			
01.30–02.15	Nepali	5955/7225	01.30–01.40
Burma			
00.40–01.15	Burmese	7225/9765	00.41–00.50
11.15–12.15	Burmese	11810/15105	11.16–11.25
China			
11.45–12.30	Cantonese	9740/11830	11.46–11.55
12.30–13.15	Kuoyu	9740/11830	12.31–12.40
No. Ea. Asia			
10.00–11.00	English	11770/15105/17855	10.01–10.10
Australia, New Zealand			
10.00–11.00	English	9740/11710/15290	10.01–10.10
Bhutan, Sikkim, etc.			
03.15–03.30	Tibetan	9705/11920	03.16–03.21
12.30–13.15	Tibetan	7290/9705	12.45–12.55
Indonesia			
22.45–23.00	Indonesian	7165/9530	22.46–22.55
12.15–13.15	Indonesian	17800	12.16–12.25
Ea. Asia			
11.15–11.30	**French**	17705/21580	11.16–11.25
So. Ea. Asia			
00.30–00.40	**English**	7225/9765/11785	00.30–00.40
13.30–15.00	**English**	11810/15225	13.31–13.40
WESTERN SERVICE			
Afghanistan			
02.45–03.00	Pushtu	6140/7180	02.46–02.55
14.45–15.30	Pushtu	3905	14.50–15.00
Iran			
03.45–04.00	Persian	11715/15190	03.46–03.55
16.15–17.15**	Persian	6010/7225	16.16–16.26
We. Asia			
05.00–05.30	Arabic	15170/17705	05.05–05.15
17.30–18.30	Arabic	6180/7205/9915	17.45–17.55
18.45–19.30	**French**	6125/7205/9915	18.50–19.00
U.K, We. Europe			
19.45–20.45	**English**	5995/7235/9520/9915	19.46–19.55
We. Africa			
19.45–20.45	**English**	7125/9690	19.46–19.55

There will be changes in frequencies from time to time and listeners are advised to listen to announcements which will cover all such changes.
ANN: Home Sce: "This is All India Radio". **External Sce:** "This is Delhi calling in the External Services of All India Radio".
INT-SIG: All India Radio's signature is a melody of eight second's duration repeated with intervals of 10 seconds in between. The Instruments used are violin, cello and tampura.



V. by QSL-card – **PUB:** "India Calling" free of charge – Weekly prgr.journal in English and fortnightly prgr.journals in Hindi, Urdu, Tamil, Telegu, Gujerati and Bengali. Requests for free supply of copies may be made either to the Director of External Services of All India Radio, New Delhi or through the Indian Diplomatic Mission concerned.

RADIO KASHMIR

SRINAGAR A: 1120kc 267.9m.
SRINAGAR B: 6110kc 49.10m: Afternoon. 3277kc 91.56m: Morning +Evening & Night.
JAMMU: 990kc 303.0m: 02.00–03.30, 06.30–08.00, 13.00–17.30 – 3345kc 89.69m: Morning – 5960kc 50.34m: Afternoon – 3345kc 89.69m: Evening.

INDONESIA

L.T: See Time Table – **Pr.L:** Indonesian.

RADIO REPUBLIK INDONESIA (Go.)

ADDR: P.O. Box 157, Djakarta. **Cable:** RRI. **Te:** GBR 5771 – **L.P:** Dir. Gen: Soekirman. Vice Dir. Gen (Sound): Poerbojopoetro. Vice Dir. Gen. (TV): M. Arief. Vice Dir. Gen. (Tec. Affairs): R. M. S. Soerjopranoto. Dir. Gen. Affairs: L. S. Tonaro. Dir. Pub. Relation: Drs. Sumadi.

HOME SERVICES

Call	kc	m	kW
Djakarta (Java Central Station)			
YDB	2460	121.95	1
YDD	3277	91.54	1
YDB2	4805	62.42	20
YDF	6045	49.63	100
YDB3	7270	41.26	7.5
YDB4	9770	30.71	20
YDE	11770	23.49	7.5
YDC	15150	19.80	7.5
Bandung (W. Java)			
YDA2	2420	123.96	0.25
YDA	3205	93.60	10
YDA3	4945	60.67	10
Djember (E. Java: relay)			
YDI	2330	128.74	1
Medan (N. Sumatra)			
YDP2	3395	88.37	1
YDP	5030	59.64	7.5
YDP3	7240	41.44	20
Sibolga (Sumatra: relay)			
YDM6	2330	128.5	1
Bandjarmasin (Kalimantan)			
YDO	3250	92.31	10
YDO2	5970	50.25	1
Pontianak (Kalimantan)			
YDW	2350	127.6	1
YDW2	3345	89.69	5
Samarinda (Kalimantan: relay)			
YDY	3295	91.00	1
Jogjakarta (C. Java)			
YDJ3	2350	127.65	1
YDJ	5047	59.43	7.5
YDJ2	7255	41.36	20
Madiun (E. Java: relay)			
YDG	3286	91.26	0.3
Semarang (C. Java)			
YDH	2490	120.48	1
YDH2	3935	76.24	5
YDH3	7210	41.16	5
Surabaja (E. Java)			
YDI3	2370	126.50	1
YDI2	3975	75.48	10
Surakarta (C. Java)			
YDG2	2440	122.9	1
YDG3	4875	61.54	10
Tjirebon (W. Java)			
YDA6	2390	125.5	1
Padang (S. Sumatra)			
YDL2	2480	120.90	1
YDL	3960	75.76	10
YDL3	6195	48.43	10
Palembang (S. Sumatra)			
YDK2	2430	123.50	1
YDK	4855	61.79	10
Bukittinggi (N. Sumatra)			
YDM	4910	61.10	0.3
Kotaradja (N. Sumatra)			
YDN	2390	125.50	1
YDN2	4900	61.22	10
Pakanbaru (N. Sumatra)			
–	5990	50.08	5
Makassar (Sulawesi)			
YDQ4	2490	120.5	0.3
YDQ	4750	63.16	7.5
YDQ3	7295	41.12	20
YDQ2	9550	31.41	20
Menado (Sulawesi)			
YDS2	5990	50.08	10
YDS	3214	93.34	1
Gorontalo (Sulawesi)			
YDS	4900	61.22	1
Denpassar (Bali)			
YDU7	2420	123.96	1
YDU2	3945	76.05	10
YDU6	7120	42.13	10
Ambon (Maluku)			
YDR3	3241	92.56	10
YDR2	7140	42.02	1
Ternate (Maluku: relay)			
YDZ	2460	121.95	1
YDZ2	3915	76.64	1
Tdj., Pinang (Sumatra: relay)			
YDX	4930	60.85	1
Kupang (Nusa Tenggara)			
YDV	3359	92.05	5
Mataram (Nusa Tenggara)			
YDX	3365	89.15	1
Singaradja (Nusa Tenggara)			
YDU	4840	61.98	0.3
Sumenep (Madura)			
YDI20	3355	89.41	1
Kotabaru (West Irian)			
–	7190	41.72	10
–	6070	49.42	5
–	9745	30.78	5
–	3365	89.15	0.5
Biak (West Irian)			
–	7230	41.49	1
–	3389	88.6	0.5
Manokwari (West Irian)			
–	3385	88.63	0.3
Sorong (West Irian)			
–	3395	88.37	1
Fak-Fak (West Irian)			
–	3345	89.69	0.5
Merauke (West Irian)			
–	3985	75.28	0.25

Nippon Electric Co, Japan delivered to Djakarta: 1 × 100W, 1 × 10kW tr's, studio and remote pick-up equip.
National Prgr. (Djakarta): 22.30(Sun 23.30)–07.30, 09.30–16.30 on 6045/7270/11770/15150/9585kc.
N: W: 22.30, 23.30, 04.30, 05.30, 11.30, 12.30, 14.30. Sun: 23.30, 00.30, 04.30, 05.30, 11.30, 12.30, 14.30 – **L.L. English:** Mo 10.30 (English for

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you), Wed 10.30, Thurs 12.30 (The road to English), Sat 12.30 (Listen and Teach). **French:** Mo 12.30, Thurs 10.30. **German:** Tues 12.30, Fri 10.30. **Russian:** Tues 10.30, Fri 12.30.

Local Prgr. (Djakarta): 09.30–11.30 on 2460kc.

Third Prgr. (Djakarta): 22.28–23.30 (Sun 23.28–02.30) on 3277/4805 kc, 09.30–15.30 on 3277/4805kc.

Bandung, Jogjakarta, Semarang, Surabaja, Surakarta, Tjirebon, Bandjarmasin, Pontianak: W: 22.27–23.45, 05.27–06.45, 09.27–15.30. Sun: 23.27–06.45, 09.27–15.30.

Padang, Bukittinggi, Kotaradja: W: 23.27–00.45, 06.27–07.45, 10.27–16.30. Sun: 00.27–07.45, 10.27–16.30.

Djember, Madiun: D: 22.27–23.45, 09.27 15.30. Sun: 23.27–06.45, 09.27–15.30.

Gorontalo, Kupang: D: 09.57–14.00 – **Ternate, Soa Siu:** 09.27–14.30.

Palembang: W: 22.57–00.15, 05.57–07.15, 09.57–16.00. Sun: 23.57–00.45, 09.57–16.00.

Medan: W: 23.27–01.30, 06.27–08.15, 10.27–16.30. Sun: 00.27–08.15, 10.27–16.30.

Sibolga: W: 23.27–00.45, 10.27–16.30. Sun: 00.27–01.45, 10.27–16.30.

Makassar: W: 21.57–23.15, 04.57–06.45, 08.57–15.00. Sun: 22.57–06.15, 08.57–15.00.

Menado: W: 22.00–23.15, 05.00–06.45, 09.00–15.00. Sun: 23.00–06.15, 09.00–15.00.

Denpassar: W: 22.25–23.45, 05.25–06.45, 09.30–15.30. Sun: 23.25–06.45, 09.30–15.30.

Ambon: W: 21.30–22.45, 04.27–05.45, 08.30–14.30. Sun: 22.30–05.45, 08.30–14.30.

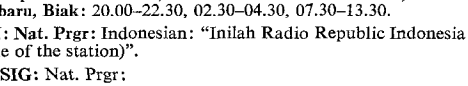
Tdj. Pinang: D: 10.27–16.30 – **Mataram:** D: 10.27–14.30 – **Singaradja:** D: 10.27–14.30 (relay).

Sumenep: D: 22.27–23.45, 09.27–15.30. Sun: 23.57–01.30, 09.27–15.30.

Kotabaru, Biak: 20.00–22.30, 02.30–04.30, 07.30–13.30.

ANN: Nat. Prgr: Indonesian: "Inilah Radio Republic Indonesia di... (name of the station)".

INT-SIG: Nat. Prgr:



played on Hammond organ by Sudarnoto. V. by QSL-card or letter.

FOREIGN SERVICE (from Djakarta)

Call	kc	m	kW	Call	kc	m	kW
YDB3	7270	41.27	7.5	YDF2	11785	25.46	100
YDF6	9585	31.30	50	YDF3	11795	25.43	20
YDF6	9710	30.90	50	YDC	15150	19.80	100
YDF2	11715	25.61	100	YDF4	17810	16.84	50

English: 11.00–12.00 (Au, NZ) on 9585/11715kc, 14.30–15.30 (So. Ea. As, India, We. No. Am) on 9585/11715kc, 19.00–20.00 (Eu, NZ) on 9865/11715kc – **French:** 17.00–18.00 (Eu, ME, Af) on 9865/11715kc – **Indonesian:** 18.00–19.00 (Eu, ME) on 9585/11715kc, 01.00–02.00 (Am, So. Ea. As) on 9585/11795kc – **Chinese:** 12.00–13.00 (So. Ea. Asia) on 9585/11715kc – **Arabic:** 13.00–14.00 (So. Ea. Asia) on 9585/11715kc, 16.15–16.30 (ME) on 9865/11715kc – **Hindi:** 15.30–16.00 (So. Asia, Af) on 9585/11715kc – **Urdu:** 14.00–14.30 on 9585/11715kc.

Note: This schedule is changed every 3 months according to tentative high freq. broadc. sched.

ENGLISH:

N: 11.15, 14.45, 19.15 – **"Indonesia in Word and Music":** Mo 11.42, 15.12, 19.42 – **"Indonesian Music":** Sun: 11.25, 14.55, 19.25. Fri: 11.02, 14.32, 19.02. Sat: 11.43, 15.13, 19.43 – **"Turntable Time":** Tues: 11.43, 15.13, 19.43. (Request Prgr. consisting of Western songs and popular Indonesian tunes).

FRENCH: N: 17.41.

INDONESIAN: N: 18.15, 18.55, 01.15, 01.55.

ANN: E: "This is the Voice of Indonesia broadcasting from Djakarta". F: "Ici Djakarta, la voix de l'Indonésie".

INT-SIG: Some instrumental music in accordance with the genre of the next programme – V. by QSL-card or letter. Listeners rep.s are welcome.

PUB: Weekly: "Mingguan Radio", (home prgr.) – Monthly: "Voice of Indonesia" (Foreign broadc. in Indonesian, Hindi, Urdu, Chinese, Arabic, English, French, Dutch). Write to "Voice of Indonesia", RRI, P.O. Box 157, Djakarta.

IRAN

L.T: GMT+3½ h – **Pr.L:** Persian.

GENERAL DEPARTMENT OF PUBLICATIONS AND BROADCASTING (Go.)

FI: By Go – **AD:** Allowed, income goes straight to the Treasury. 4 times daily (resp. 2, 2, 2, 15 mins.) – **ADDR:** R. Iran, Maydane Ark, Teheran. **Cable:** "Entesharat va Radio. **Te:** 51161 – **L.P:** Minister of Roads, Supervisor of Gen. Dept. of Pub. & Broadc: H. E. H. Moinian. Mgr, Dep. to Dir.Gen. & Dir.Tec: M.R.Atefi. Dir.For.Rel: Y.N.Laouri.

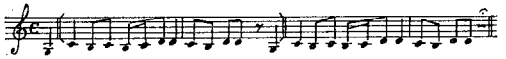
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW	kc	m	kW
895	335.2	50	3780	79.30	20	7031	42.62	100	7125	42.11	100
1325	226.5	100/1	4840	61.98	20	7085	42.32	100	FM: 98Mc 0.5		

The Marconi Company Ltd, GB: 660W tr.

HOME SCE. (R. Iran):
07.55–12.15, 12.26–19.30 on 1325/3780/7125kc, 19.30–20.30 on 1325/4840/7125kc, 20.30–01.30 on 1325(1kW)/7125/4840kc, 01.30–06.33 on 1325kc (all prgr's also on 98Mc) – **N. in Persian:** 21.30, 22.30, 23.30, 00.30, 01.30, 02.30, 03.30, 04.30, 05.30, 06.30, 08.27, 09.30, 10.30, 11.00, 12.30, 13.30, 14.30, 15.30, 16.30, 17.30, 18.30, 19.30.
R. TEHERAN in Persian 895kc: 02.55–04.30, 06.25–09.30, 13.25–19.30.
FOREIGN SCE. to Europe: 19.30–21.00 on 895/7031kc, 19.30 Persian, 20.00 Russian, 20.15 Turkish, 20.30 French, 20.45 English.

REGIONAL STATIONS:
R. Tabriz: 650kc 461.5m 5kW – 6155kc 48.74m 7.5kW: 02.25–05.00, 07.54–12.00, 13.24–18.30. **Russian:** 18.00. **Armenian:** 17.30–18.00.
R. Rezaieh: 1000kc 300m 0.2kW – 6940kc 43.23m 0.4kW. **Assyrian:** 13.30–14.00. **Armenian:** 13.15–13.30. **Kurdish:** 12.30–13.15. **Turkish:** 15.30–16.30.
R. Isfahan: 1425kc 221.1m 1kW: 11.45–17.30.
R. Zahedan: 777kc 387m 100kW: 12.15–18.30. **Urdu:** 15.00–16.00.
R. Sanandaj: 920kc 326.0m 1kW – 6700kc 44.44m 0.4kW: 02.45–04.30, 11.25–14.27, 14.30–17.30.
R. Kermanshah: 985kc 302m 100kW: 11.00–19.30. **Kurdish:** 14.30–17.30.
R. Gorgan: 1462kc 205m 1kW: 11.15–17.30 – **R. Shiraz:** 1060kc 285m 1kW: 12.15–17.30 – **R. Resht:** 680kc 441.2m 1kW: 05.15–17.30 – **R. Kerman:** 1090kc 275m 1kW: 12.15–17.30 – **R. Mashad:** 1100kc 272.7m 1kW: 12.20–16.30.
R. Ahwaz: 1390kc 215.8m 100kW: 12.15–20.30. **Arabic:** 03.30–08.30.
ANN: E: "This is Teheran, R. Iran". F: "Ici Teheran, R. Iran". Turkish: "Burasi Teheran, Iran Radyosu". Russian: "Govorit Tegeran, R. Iran". Persian: "Inja Teheran ast, R. Iran". Urdu: "R. Iran – Zahedan". Kurdish: "Dani Irana, Bashi Kurdi". Arabic: "Huna al Ahwaz, Der'el Isa'a al Iraniya". Baluchi: "Ada Zahedan, R. Iran". Armenian: "Tavrizne Khosoum". Assirian: "Lakha Rezaieh – Radio Azerbayjan Ma'arveta" – **INT-SIG:** Iranian Melody played on Tar (Persian string instrument). Beginning of the "Mahour" one of the seven sets of Iranian Music).



V. by letter. Re. to Int. Sce. Records accepted – **PUB:** "Iran today" (Quarterly magazine) in E, F, G. "Facts about Iran" (weekly bulletin) in E, F, Arabic.
Nippon Electric Company Ltd, Japan 2 × 100kW mw-tr's.
Telefunken AG, Germany 2 × 100kW sw-tr's.

IRAQ

L.T: GMT+3 h – **Pr.L:** Arabic, Kurdish, Turkuman.
BROADCASTING STATION OF THE REPUBLIC OF IRAQ (Go.)
ADDR: Directorate Gen. of Broadc. and Television, Salihiya, Baghdad. **Cable:** Broadcasts. **Te:** 31101 – **L.P:** Dir. Gen: A. S. Doori. Dir. of Broadc: A. H. Samiraee. Dir. Prgr: Z. Jaber. Dir. TV: A. R. Fawzi. Dir. Tec: U. M. Ali.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
764	392.6	150/300	3240	92.59	50	6155	48.74	50
908	330.0	200	3990	75.19	50	7180	41.78	100
1350	222.2	20	6030	49.75	100	9555	31.40	50
			6095	49.22	100	9635	31.14	50

HOME SCE: Arabic: 02.30–05.30 on 908/6155/7180kc, 05.30–07.00 on 908/6155kc, 10.00–22.00 on 908/764/3990/6155/7180/9555kc, 22.00–22.15 on 908/3990/7180/9555kc.
N: 03.00, 05.00, 11.00, 15.00, 16.00, 17.00, 19.00, 22.00, also at 18.30, 21.00 on 764/3990kc – **Wrp:** 19.00 – **T.S:** Pips every h, clock striking at 05.00, 11.00, 15.00, 17.00, 19.00.
Kurdish, Turkuman: 02.30–05.30 on 1350/3240/6030kc, 05.30–07.00 on 1350/3240kc, 10.00–18.30 on 1350/3240/6030kc.

FOREIGN SERVICE:
Urdu 18.30–19.00 on 6030/9635kc. Persian 19.00–19.45 on 3240/6030kc. Turkish 19.45–20.30 on 3240/6030kc. **French** 20.30–21.00. **German** 21.40 -22.10. **English** 21.00–21.40 on 6030/6095kc.
ANN: "Itha'at Al-Jemhoriya Al-Iraqiya Fi Baghdad" (The Broadcasting Service of the Iraqi Republic in Baghdad) – **INT-SIG:** Soft chirps of a mechanical nightingale – **V.** by QSL-card. Re. to Chief Eng. Records accepted – **F.PL:** Mw. St's at Basra, Kurkuk – **PUB:** Prgr. schedule (monthly in Arabic).
Brown Boveri, Switzerland delivered 2 sw-tr's 250kW
The Marconi Company Ltd, G.B. delivered one 20kW, four 100kW tr's.

ISRAEL

L.T: GMT+2 h – **Pr.L:** Hebrew, Arabic.
ISRAEL BROADCASTING SERVICE (Go.)
FI: By state, license payments, adv. **AD:** 5 min. of prgr. per h. **ADDR:** Kol Ysrael, Israel Broadc. Sce, Broadc. House, Jerusalem. **Cable:** Kolyisrael. **Te:** 28161 – **L.P:** Dir. Gen: H. Givton. Dept. Dir: (Planning) Dr. Y. Spiro. Dept. Dir. (Adm): Z. M. Kenner. Dir. Prgr: Mrs. L. Porath. Dir. N. & Current Events: A. Gordon. Dir. Overseas Broadc: G. Wigoder. Dir. Arabic Prgr: Y. Hazma. Dir. Operations: N. Rogel. Head Foreign Relations: Mrs. R. Smilan. Dir. Tec: M. Berman – Ministry of Posts.
STATIONS: Medium Waves:

kc	m	kW	Call	Prgr.	kc	m	kW	Call	Prgr.
575	522	50/10	4XB36	A	1097	273.5	1	4XB43	A
656	457	100	4XB47	B	1169	256.6	1	4XB23	A
710	422.5	1	4XB20	B	1205	249	10	4XB35	A
737	407	100/200	4XB34	D	1336.5	224.5	1.5	4XB42	E
845	355	1			1358	220	0.5	4XB53	E
1025	292	0.5	4XB48	B					

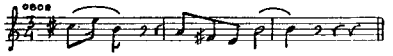
Short Waves:

9009	33.3	50/7.5	4XB31	C	7189	41.7	20	4XB49	D
9725	30.83	20	4XB51	E					

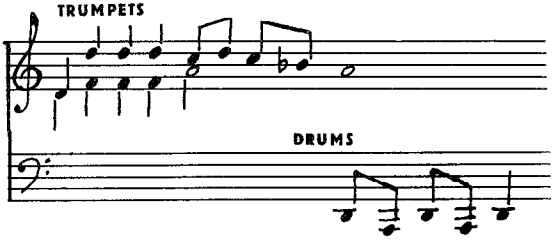
FM: (For radio links only between studios and tr's).

Mc	kW	Call	Mc	kW	Call	Mc	kW	Call	Mc	kW	Call
71.5	0.04	4XB45	89.3	0.25	4XB32	93.3	0.25	4XB39	99.3	0.25	4XB55
88.3	0.25	4XB37	90.3	0.25	4XB33	94.3	0.25	4XB52	99.7	0.04	4XB46
88.8	0.25	4XB54	93.1	0.25	4XB38						

HOME SCES:
Main Prgr. in Hebrew (Prgr. A) on 575/1169/1205/1358/845kc: 04.00–06.00, 09.00–12.00, 15.00–21.00 – **N:** 04.00, 05.00, 06.00, 11.30, 15.00, 17.00, 19.00, 21.00.
Prgr. in Hebrew, Yiddish, Ladino, French, English, Rumanian, Hungarian on 656/710/1097kc: 11.00–12.00, 14.00–21.00. **N: English:** 11.00, 19.15. **French:** 11.30, 19.00. – **Light prgr's with comm:** 14.00–17.00, 19.30–21.00 – **Arabic Prgr: D** on 737/1025/7189/9725kc: 04.30–05.15, 11.15–12.15, 15.30–21.15.
ANN: Home Sce: "Kolyisrael Miyerushalayim". **INT-SIG:** Traditional Bible constellation played on obo strings.



FOREIGN SCE. on 9009kc (Prgr. C)
To Latin America: 04.15–04.30 Yiddish – **To So. Africa:** 15.30–16.30 English 16.00 – **To Europe, Asia:** 16.45–17.15 Yiddish – 17.15–17.45 Persian, 18.15–18.30 Rumanian, 18.30–18.45 Hungarian, 18.45–19.00 Ladino, 19.00–19.15 Hebrew, 19.30–20.00 **French,** 20.00–20.30 **English.** **N: English:** 16.00, 20.00 – **French:** 19.50 – **ANN:** E: "This is Kolyisrael the Voice of Israel, broadc. from Jerusalem" – **V.** by QSL-card. **INT.-SIG.:**



JAPAN

L.T: GMT+9 h – **Pr.L:** Japanese.
NIPPON HOSO KYOKAI (Public Corporation, non-comm.) **(The Japan Broadcasting Corporation).**
FI: In accordance with the Broadcast Law. NHK's operations are financed by the revenue from rcvr's fee.
ADDR: No. 2, 2-chome, Uchisaiwai-cho, Chiyoda-ku, Tokyo, **Cable:** "RADIONHK". **Te:** (501) 4111 .
L.P: Chmn, (Board of Covernors): Y. Chiba. Pres: S. Abe. Vice Pres: Y. Maeda. Gen. Man Dir's: Y. Tanabe. K. Ono. M. Akagi. Y. Kasuga. S. Tochizawa. Man Dir's: S. Shimaura. I. Matsui. K. Shudo. F. Mikuma. T. Nomura. Auditor's: K. Sugimoto. Y. Yoshikawa. S. Monden. Dir's: Secr: H. Okada. Policy Study Board: T. Akimoto. Audit Board: H. Sho. Prgr. Inspection Board: K. Kawakami. Public Rel Board: H. Asanuma. 1st planning Bureau: T. Numura. 2nd planning Bureau: Y. Yoshida. 3rd planning Bureau: Y. Sawamura. 4th planning Bureau: H. Matsuura. Financial planning Bureau: M. Shiga. Pers. Bureau: S. Kato. Labor Bureau: S. Omura. Gen. Broadc. Adm: Y.

Kasuga. Program Contr's: M. Miyagawa. I. Nihira. H. Sano. T. Hirata. Dir's: Educ. Dept: M. Nagahama. Entertainm. Dept: T. Nagasawa. N. Dept: H. Sano. N. Commentators Room: G. Fujise. Tech Operation Dept: T. Sahara. Prgr. Service Dept: Y. Yoshida. Overseas Broadc. Dept: I. Matsui. General Affairs Dept: Y. Hirokawa. Finance Dept: T. Takeda. Eng. Dept: S. Shimizu. Facilities Constr. Dept: U. Tsuji. Subscript Dept: S. Kubo. Radio & TV Cult. Research Inst: K. Katagiri. Tech. Research Lab: T. Nomura. C. Training Inst: T. Matsunaga. Tokyo Olympic Broadc. Headq: Secr. Gen: Y. Maeda. Dir. Planning Bureau: I. Matsui. Operation Bureau: Y. Kasuga.

STATIONS: Medium Waves: The medium-wave (535–1650kc) tr's are used for domestic radio sce. in the 1st and 2nd net., both extensive enough to place the entire country under coverage.

[1]=1st net. [2]=2nd net.

Call	kc	kW
°Sapporo		
[1]IK	570	100
[2]IB	750	100
Hakodate		
[1]VK	680	1
[2]VB	1470	1
Esashi		
[1] –	1030	0.05
[2] –	1360	0.05
Kariba		
[1] –	1160	0.1
[2] –	1540	0.1
Matsumae		
[1] –	1160	0.05
Asahikawa		
[1]CG	620	1
[2]CC	1470	1
Wakkanai		
[1]IQ	980	1
[2]IY	1470	0.5
Nayoro		
[1]CY	600	1
[2]AZ	1320	1
Rumoi		
[1]IX	1160	0.05
[2]CI	1360	0.05
Nakatonbetsu		
[1] –	1030	0.05
Enbetsu		
[1] –	790	1
[2] –	1600	1
Obihiro		
[1]OG	660	1
[2]OC	1080	1
Hiroo		
[1] –	1030	0.05
Kushiro		
[1]PG	640	10
[2]PC	1070	10
Nemuro		
[1]PQ	1030	0.1
[2]PS	1360	0.1
Nakashibetsu		
[1] –	1340	0.1
[2] –	1540	0.1
Kitami		
[1]KP	1150	10
[2]KD	1370	10
Engaru		
[1] –	1030	0.1
Muroran		
[1]IU	780	1
[2]IT	1080	1
Urakawa		
[1] –	1340	0.1
°Sendai		
[1]HK	890	10
[2]HB	1090	10
Kesennuma		
[1]HS	1160	0.1
[2]HU	1540	0.1
Naruko		
[1] –	1160	0.1
Akita		
[1]UK	760	10
[2]UB	1590	10
Odate		
[1]UT	1160	0.1
[2]UV	1360	0.1
Yokote		
[1] –	1030	0.1
[2] –	1540	0.1
Hanawa		
[1] –	1340	0.1
Yamagata		
[1]JG	540	5
[2]JC	1470	1
Yonezawa		
[1]JQ	1030	0.05
[2]JZ	1360	0.05
Shinjo		
[1]JS	1340	0.05
[2]JT	1540	0.05
Tsuruoka		
[1]JP	1440	1
[2]JD	1080	1
Morioka		
[1]QG	650	10
[2]QC	1220	10
Kamaishi		
[1]QS	580	0.1
[2]QT	1470	0.1
Miyako		
[1] –	1030	0.1
[2] –	1360	0.1
Ofunato		
[1] –	1030	0.1
[2] –	1360	0.1
Kuji		
[1] –	1340	0.1
[2] –	1540	0.1
Iwaizumi		
[1] –	790	0.1
Tono		
[1] –	1340	0.1
Fukushima		
[1]FP	580	0.1
[2]FD	1320	0.1
Koriyama		
[1]CP	620	1
[2]CD	1510	1
Wakamatsu		
[1]HT	1160	0.1
[2]HY	1540	0.1
Tadami		
[1] –	1030	0.1
[2] –	1360	0.1
Tajima		
[1] –	1340	0.1
Taira		
[1]HQ	1340	0.1
[2]HZ	1540	0.1
Somaharamachi		
[1] –	1160	0.1
Aomori		
[1]TG	960	5
[2]TC	1320	1
Hirosaki		
[1]RG	1440	0.5
[2]RC	820	0.5
Fukaura		
[1] –	1340	0.1
Hachinohe		
[1]TQ	1000	1
[2]TZ	1510	1
Atsumi		
[1] –	1030	0.1
*Tokyo		
[1]AK	590	100
[2]AB	690	100
Nagano		
[1]NK	620	1
[2]NB	1320	1
Komoro		
[1]NQ	1030	0.1
[2]NZ	1540	0.1
Ueda		
[1] –	1340	0.1
[2] –	1470	0.1
Matsumoto		
[1]SG	540	1
[2]SC	1510	1
Iida		
[1]SQ	620	1
[2]SZ	1320	0.5
Ina		
[1] –	1340	0.05
[2] –	1540	0.05
Okaya-Suwa		
[1]SU	1160	0.1
[2]SI	1360	0.1
Kyso-Fukushima		
[1] –	1030	0.1
[2] –	1600	0.1
Komagane		
[1] –	1240	0.1
Niigata		
[1]QK	840	10
[2]QB	1190	10
Takada		
[1]QX	790	0.1
[2]QV	1360	0.1
Kofu		
[1]KG	980	1
[2]KC	1470	1
Fuji-Yoshida		
[1]YP	1340	0.1
°Nagoya		
[1]CK	730	10
[2]CB	910	10
Takayama		
[1]CQ	790	1
[2]CZ	1470	0.5
Ueno		
[1]CT	1160	0.1
Owase		
[1]CU	1160	0.1
[2]DS	1540	0.1
Nakatsugawa		
[1] –	1160	0.1
[2] –	1360	0.1
Kamioka		
[1] –	1340	0.05
[2] –	1080	0.05
Gujo-Hachiman		
[1] –	1300	0.05
Hagiwara		
[1] –	1340	0.05
Kumano		
[1] –	1300	0.1
Toyohashi		
[1]CS	1160	0.1
[2]CV	1360	0.1
Kanazawa		
[1]JK	1170	10
[2]JB	1390	10
Nanao		
[1]JU	540	0.1
[2]JV	1470	0.1
Wajima		
[1] –	1160	0.05
[2] –	1360	0.05
Yamanaka		
[1] –	1030	0.02
Shizuoka		
[1]PK	880	10
[2]PB	1500	10
Atami		
[1] –	1160	0.1
Hamamatsu		
[1]DG	580	1
[2]DC	1080	1
Fukui		
[1]FG	980	5
[2]FC	1520	1
Tsuruga		
[1]FT	1030	0.1
[2]FZ	1470	0.1
Obama		
[1]FY	1160	0.1
[2]FQ	1360	0.1
Katsuyama		
[1] –	1160	0.1
[2] –	1360	0.1
Toyama		
[1]IG	580	5
[2]IC	1520	1
°Osaka		
[1]BK	670	100
[2]BB	830	100
Shingu		
[1]BQ	1030	0.1
[2]BY	1360	0.1
Toyooka		
[1]BU	1160	0.1
[2]BV	1540	0.1
Tanabe		
[1]BT	1160	0.1
[2]TD	1360	0.1
Hikone		
[1]BS	780	0.1
Koza		
[1] –	1340	0.05
[2] –	1600	0.05
Kazumi		
[1] –	1340	0.1
Kyoto		
[1]OK	1300	1
[2]OB	1510	1
Fukuchiyama		
[1]OT	1030	01.
[2]OS	1360	0.1
Maizuru		
[1]OQ	1340	0.1
[2]OZ	1540	0.1
Miyatsu		
[1] –	1000	0.1
°Hiroshima		
[1]FK	770	10
[2]FB	1070	10
Shobara		
[1] –	1160	0.05
[2] –	1360	0.05
Miyoshi		
[1] –	1440	0.1
[2] –	1080	0.1
Tojo		
[1] –	790	0.1
Kure		
[1] –	1240	0.1
[2] –	1520	0.1
Onomichi		
[1]DP	1000	1
[2]DD	1470	1
Okayama		
[1]KK	600	5
[2]KB	1600	5
Tsuyama		
[1]KU	1160	0.1
[2]KT	1540	0.1
Niimi		
[1]KI	1340	0.1
[2]KV	1540	0.1
Matsue		
[1]TK	850	10
[2]TB	1290	10
Hamada		
[1]TS	1030	0.1
[2]TT	1360	0.1
Masuda		
[1] –	1340	0.1
[2] –	1540	0.1
Tsuwano		
[1] –	1160	0.1
[2] –	1360	0.1
Iwami		
[1] –	620	0.05
Kawamoto		
[1] –	1300	0.05
Tottori		
[1]LG	1300	1
[2]LC	1080	1
Kurayoshi		
[1] –	1030	0.1
[2] –	1360	0.1
Yonago		
[1]LQ	780	1
[2]LU	1520	1
Yamaguchi		
[1]UG	680	5
[2]UC	820	5
Hagi		
[1]UQ	960	1
[2]UZ	1600	0.5
Shimonoseki		
[1]UI	1160	0.1
[2]UU	1360	0.1
°Matsuyama		
[1]ZK	960	3
[2]ZB	1510	1
Uwajima		
[1]ZU	1440	1
[2]ZY	1600	1
Ozu		
[1] –	790	0.1
Niihama		
[1]ZQ	620	0.1
[2]ZZ	1540	0.1
Imabari		
[1]ZT	1160	0.05
Yawatahama		
[1]ZS	580	0.1
[2]ZI	1080	0.1
Johen		
[1]ZV	1340	0.05
[2]ZX	1080	0.05
Uwa		
[1] –	1030	0.05
Kochi		
[1]RK	990	10
[2]RB	1370	10
Nakamura		
[1]RQ	1000	1
[2]RY	1520	0.5
Yusuhara		
[1] –	1160	0.1
[2] –	1470	0.1
Sukumo		
[1] –	1030	0.05
Taishio		
[1] –	1300	0.1
Tokushima		
[1]YK	780	5
[2]XB	1520	1
Ikeda		
[1]XI	1160	0.1
[2]XU	1360	0.1
Mugi		
[1] –	1030	0.1
Takamatsu		
[1]HP	1300	1
[2]HD	1080	0.5
Kannonji		
[1] –	1030	0.1
°Kumamoto		
[1]GK	930	10
[2]GB	1590	10
Hitoyoshi		
[1]GQ	1240	1
[2]GV	1600	1
Fukuoka		
[1]LK	610	100
[2]LB	870	100
Kitakyushu		
[1]SK	1240	1
[2]SB	1600	1
Nagasaki		
[1]AG	660	1
[2]AC	1080	1
Shimabara		
[1] –	1160	0.02
Sasebo		
[1]AT	790	0.5
[2]AY	1510	0.5
Kagoshima		
[1]HG	700	10
[2]HC	1220	10
Naze		
[1]HI	580	1
[2] –	1320	1
Akune		
[1] –	1030	0.1
[2] –	1470	0.1
Miyazaki		
[1]MG	540	1
[2]MC	1470	1
Nobeoka		
[1]MT	620	11
[2]MX	1320	1
Nichinan		
[1] –	1340	0.1
[2] –	1540	0.1
Takachiho		
[1] –	1030	0.1
[2] –	1360	0.1
Kushima		
[1] –	1030	0.05
Oita		
[1]IP	790	1
[2]ID	1470	1
Miyakonojo		
[1]MQ	1160	0.1
[2]MU	1360	0.1
Kobayashi		
[1] –	1030	0.1
[2] –	1540	0.1
Saeki		
[1] –	1160	0.1
[2] –	1520	0.1
Hita		
[1]IV	1030	0.05
Saga		
[1]SP	960	1
[2]SD	1320	1
Karatsu		
[1]SV	1160	0.05

*=Headquarters. °=Reg. Central st.

HOME SERVICE

1st NET: D 20.00–15.00 – N: Every h exc. D 11.00 and Sun 01.00, 02.00, 05.00, 09.00. Also 14.55–15.00. W 08.40–08.45 – **Wrp:** 20.57, 21.00, 22.00, 02.55, 03.00, 06.00(W), 08.00(W), 09.55, 10.00, 12.00, 13.00(W) – **Mbg:** W 21.50–22.00 – **T.S:** Every h.

2nd NET: D 20.30–15.00 – **English N:** W 09.00–09.05 – **L.L: English:** Mo–Fri 21.05, 09.40. **German:** Mo, Wed, Fri 22.00. **French:** Tues, Thurs, Sat 22.00. **Russian:** W 20.30. **Weather Map:** D 00.03 07.00, 13.00.

The two networks together are on the air for a grand total of 37.5 h* – School prgr's are specially presented over the 2nd network for 3 h and 35 mins. between 23.15–10.00.

* Classified by broadc. hours (%), News 21.1, Cultural 35.5, Education 22.4, Entertainment 16.0, Sports 5.0.

FM: JOAK-FMX Tokyo 82.5Mc 10kW, JOBK-FMX Osaka 88.1Mc 10kW, Hiroshima 88.3Mc 1kW, Fukuoka 84.8Mc 1kW, Nagoya 82.5 Mc 3kW, Kumamoto 85.4Mc 1kW, Sendai 82.5Mc 3kW, Sapporo 85.2Mc 3kW. Matsuyama 87.7Mc 1kW.

FOREIGN SERVICE (R. Japan)

I=So. Asian Sce., II=Mid. East & No. African Sce., III=African Sce., IV=No. American Sce., V=No. & Latin American Sce., VI=Hawaian Sce., VII=European Sce., VIII=Latin American Sce., IX=Australia & N. Z. Sce., X=Asian Continent Sce., XI=Korean Sce., XII=East Asian Sce., XIII=Philippine & Indonesian Sce., XIV=Southeast Asian Sce.

Languages: a) Hindi, English, Urdu, Bengali – b) Arabic, French, English – c) Russian, German, French, Italian, English, Swedish – d) English, French – e) English, Japanese – f) Spanish, Japanese, English – g) Japanese, Portuguese, Spanish – h) Korean – i) Chinese, Russian – k) Japanese – l) English, Malay, Indonesian – m) Chinese, French, Vietnamese, English, Thai – n) English.

STATIONS: 20/50/100/200kW.

kc	m	kc	m	kc	m	kc	m
6080	49.34	9740	30.80	15105	19.86	15425	19.45
6140	48.86	9765	30.72	15115	19.85	17725	16.93
7195	41.70	11705	25.63	15135	19.82	17755	16.90
9505	31.56	11725	25.59	15175	19.77	17785	16.87
9525	31.50	11780	25.47	15195	19.74	17795	16.86
9530	31.48	11800	25.42	15225	19.70	17825	16.83
9580	31.32	11815	25.39	15235	19.60	17855	16.80
9605	31.23	11855	25.31	15285	19.63	17870	16.79
9675	31.01	11865	25.28	15310	19.60	17875	16.78
9695	30.94	11875	25.26	15325	19.58	17895	16.76
9705	30.91	11940	25.13	15390	19.49		

Japan

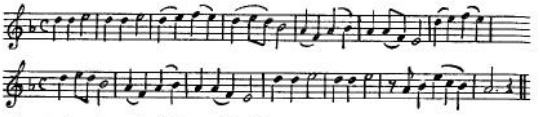
Times	Reg. Sce.	kc	Languages
15.00–16.30	I	7195, 9525	a
16.45–18.45	II	7195, 11705	b
19.00–20.00	III	6140, 9525	d
23.30–00.30	IV	11705, 11780, 15135	n
02.00–04.00	V	9525, 11780, 15235, 17725	f
05.30–07.00	VI	11705, 15235	e
06.15–08.45	VII	11780, 15135, 15425	c
09.00–10.30	VIII	9530, 9765, 11705	g
09.30–10.30	IX	11875, 15235	n
10.45–12.15	X	9675, 11705	i
10.45–11.45	XI	6080, 7195, 9705	h
12.00–14.30	XII	6080, 7195, 9705	k
12.30–14.30	XIII	9525, 11780	l
13.00–16.00	XIV	9675, 11705	m

General Sce. in English & Japanese: (each tr. of 30 min's duration): 00.00, 01.00 on 15195, 15105, 15310kc; 02.00, 03.00, 04.00 on 15195, 11905, 15310kc; 05.00, 06.00, 07.00, 08.00, 09.00 on 11815, 9505, 15310kc; 10.00, 11.00 on 9605, 9505, 15310kc; 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 18.00 on 9605, 9505, 9740kc; 19.00 on 9605, 15105, 9740kc; 20.00, 21.00, 22.00 on 9675, 15105, 6080kc; 23.00 on 15195, 15105, 15310kc.

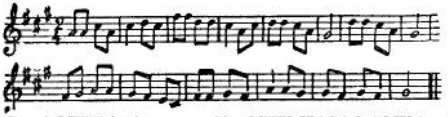
NEWS: English: 15.25 (I), 17.25 (II), 19.25 (III), 23.30 (IV), 03.15 (V), 05.30 (VI), 08.00 (VII), 09.30 (IX), 12.30 (XIII), 14.45 (XIV) and in Gen. Sce. at the beginning of each tr. – **French:** 17.10 (II), 19.00 (III), 07.25 (VII), 14.20 (XIV) – **German:** 06.50 (VII) – **Italian:** 07.45 (Mo) – **Portuguese:** 09.50 (VIII) – **Spanish:** 02.00 (V), 10.20 (VIII) – **Swedish:** 08.30 (Thurs) (VII) – **Russian:** 11.35 (X), 06.15 (VII) – **DX-PRGR:** (in English) (every 4th Sat/Sun of the month): 15.45 (I), 17.55 (II), 19.45 (III), 00.15 (IV), 03.45 (V), 06.00 (VI), 08.30 (VII), 10,10 (VIII), 13.15 (XII), 15.15 (XIV). **LISTENERS CORNER** Sun: 00.15 (IV), 03.45 (VI), 06.00 (VII), 08.30 (III), 10.10 (VIII), 13.15 (XII), 15.15 (XIII), 15.45 (I), 17.55 (II), 19.45 (XIV) – **SCANDINAVIAN HOUR (Swedish):** Thurs 08.30–08.45.

ANN: Home Service: The call-sign and the station name are announced at the commencement and end of each transmission. At intervals between programmes, an announcement, "NHK" is made – On the 1st network, the call-sign and the station name are announced just before timecast – On the 2nd network, the call-sign and the station name are announced every hour at half past – **Foreign Service: English:** "This is Radio Japan, the overseas broadcasting service of NHK: We are broadcasting to... ("target area") – **French:** "Ici Radio Japon... (target area)" – **German:** "Hier ist Tokyo, der japanische Rundfunk... (target area)" – **Italian:** "Buon giorno, sign. radioascoltatori Italiani. Qui Radio Giappone – Reparto Servizio Internazionale di NHK..." – **Spanish:** "Aqui Radio Japon..." – **Portuguese:** "Estão ouvindo a Radio Japão..." – **Indonesian:** "Inilah Radio Djepang, siaran international dari NHK di Tokio...".

INT-SIG: Home Service: Both on the 1st and the 2nd networks, a musical sign is beamed on a celeste before commencing broadcasting. No interval signal is used since both the 1st and the 2nd networks are continuously on the air – **Foreign Service:** Opening music "Sakura":



Intervalsignal music "Kazoe Uta":



PUB: Graph NHK (twice a month) - NHK HOSO BUNKA or NHK Broadcast Culture (monthly in Japanese only) – NHK Year Book (annual) in English & Japanese – "R. Japan News" (monthly in English, Japanese and others). Prgr. schedules are published annually in April, when the schedules are revised. The prgr. sched. for Overseas Sce. sched. is distributed upon request. No return postage required – V. by QSL-card and by letter.

F.PL: NHK has started the second Six-Year Plan in 1962 and it is estimated that by the end of 1967 radio st's will be increased to 182 for the first network, 129 for the second network and 153 for the FM broadcast.

NHK

Known by its Japanese initials as NHK, the Japan Broadcasting Corp. is the only non-commercial, non-governmental, public-supported broadcasting system in the country. Its primary aim is improving the public welfare through information and educational programs.

NHK conducts domestic broadcasting service through two nationwide networks each for radio and television, and also operates experimental FM broadcasting by VHF.

Besides the domestic service, NHK conducts overseas broadcasting service under the name of "Radio Japan."

Nippon Electric Comp. Ltd., Japan: M. W. tr's: **100kW:** Sapporo (2), Osaka – **10kW:** Morioka (2), Akita (3), Sendai (2), Shizuoka (3), Kanazawa (2), Kushiro (2), Matsue – **500W:** Matsue, Toyama, Hamamatsu, Kochi – **100 Watt:** Toyohashi, Tsuwano, Shimonoseki, Okava-Suwa – **50 Watt:** Shinio – **FM:** Tokyo 10kW, Sendai 3kW.

THE NATIONAL ASSOCIATION OF COMMERCIAL BROADCASTERS IN JAPAN

ADDR: 7-2 Ginza-Nishi, Chuo-ku, Tokyo. **Cable:** Kyobashi Mimporen. **Te:** 571-9936 – **L.P:** Pres: T. Adachi. Vice-Pres: E. Horiuchi H. Kaneko. Man. Dir: S. Sakai. Secr. Gen: Y. Isomura.

MEDIUM WAVES: Call: JO---

Call		kc	kW	Call		kc	kW	Call		kc	kW
1)	CR	560	10	16)	AR	1050	10	13)	SF	1330	10
2)	DR	720	5	2)	DL	1060	0.1	18)	ER	1350	10
3)	IL	720	1	2)	DM	1060	0.1	37)	UF	1380	20
4)	JF	740	5	4)	JL	1060	0.1	29)	VR	1400	5
5)	LR	740	5	7)	WR	1060	0.1	29)	3H	1400	0.5
6)	TO	800	0.1	7)	WW	1060	0.1	19)	QL	1400	1
8)	SL	800	0.1	7)	WE	1060	0.1	3)	IF	1410	10
8)	SE	800	0.1	11)	YE	1060	0.1	11)	5A	1420	0.05
9)	DE	800	0.1	13)	SM	1060	0.1	11)	YR	1420	3
10)	BO	800	0.1	23)	UE	1060	0.1	19)	TL	1420	1
11)	YO	800	0.1	28)	GE	1060	0.1	28)	GO	1430	1
12)	AL	800	0.1	16)	AO	1060	0.1	38)	VF	1430	3
3)		800	0.05	29)	VW	1060	0.05	43)	ZF	1430	1
3)	IM	800	0.04	20)	JO	1060	0.1	19)	QM	1450	3
13)	OL	800	0.1	30)	FE	1060	0.04	39)	KF	1450	5
14)	HM	800	0.1	30)		1060	0.1	25)	PL	1460	1
15)	ZO	800	0.1	31)	BL	1060	0.1	23)	UO	1460	1
16)	AW	800	0.1	18)	EO	1060	0.1	40)	RF	1480	10
17)	IO	800	0.1	41)		1060	0.1	19)	QF	1500	1
18)	EW	800	0.1	8)	SR	1100	1	30)	FO	1530	1
7)	FL	800	0.1	23)		1230	0.02	9)	DO	1530	1
16)	AW	800	0.1	24)	NF	1100	1	44)	XF	1530	1
19)	QN	800	0.1	9)	WO	1100	1	24)	–	1540	0.1
20)	–	800	0.1	32)	GF	1100	1	2)	DN	1560	0.1
8)	SO	860	1	11)	BW	1110	1	41)	CL	1560	0.1
19)	HE	860	3	12)	AF	1120	3	6)	TE	1560	0.1
21)	PR	860	5	9)	DR	1120	5	10)	BE	1560	0.1
14)	HF	900	5	33)	QR	1130	50	12)	AM	1560	0.1
15)	ZR	900	5	10)	BR	1140	10	13)	XO	1560	0.1
19)	HO	900	1	34)	MO	1200	1	38)	VM	1560	0.1
14)	–	900	0.05	8)	SW	1200	1	38)	VL	1560	0.1
22)	EF	920	5	31)	BF	1200	5	14)	HL	1560	0.1
22)		920	1	45)	YF	1200	1	21)	PO	1560	0.1
23)	MF	920	1	35)	OR	1210	20	24)	–	1560	0.1
24)	–	920	0.05	23)	UR	1230	5	32)	CL	1560	0.1
24)	–	920	1	28)	GR	1230	5	16)	AE	1560	0.1
25)	PM	920	0.1	17)	IR	1250	10	16)	–	1560	0.05
6)	TR	940	5	30)	FR	1270	10	29)	VE	1560	0.1
25)	PN	920	0.05	19)	HW	1280	1	39)	KL	1560	0.1
25)	PF	940	5	20)	JR	1280	3	18)	EW	1560	0.1
26)	KR	950	50	36)	LF	1310	50	29)	3A	1560	0.05
27)	NR	1010	20								

Short Waves:

Call		kc	m	kW	Call		kc	m	kW
42)	Z	3925	76.43	50	42)	Z2	6055	49.55	50/10
42)	Z4	3945	76.05	10	42)	Z3	9595	31.27	50/10
42)	Z5	3945	76.05	10	42)	Z6	7230	41.49	10

Nippon Electric Co., Ltd. Japan: M.W. st's:

1) **R. Kansai Ltd.** 3-7, Isonare-cho, Suma-Ku, Kobe. Te: 7–4321 – Pres: K. Tanaka. Dir. Tec: T. Masuda – 20.30–15.00 – V. by QSL-card – 2) **Iwate Broadc. Co.,** Morioka – Pres. T. Ohta. Dir. Gen: M. Yoshida – 20.00–15.00.

3) **Kyushu Asahi Broadc. Co.,** Fukuoka. Pres: S. Kimura. 20.30–15.40. V. by QSL-card – 4) **Yamanashi Broadc. System Inc.,** 288 Hyakokumachi, Kofu. Pres: J. Noguchi. 20.30–14.45.

5) **Kita-Nihon Broadc. Co.,** Toyama – Pres: S. Yokoyama – 21.50–14.10.

6) **Akita Broadc. System,** Akita – Pres: Y. Takehana. 20.00–14.40.

7) **R. Fukushima Broadc. Co.,** Fukushima. Pres: S. Tobishima. 20.00–15.30.

8) **Shinetsu Broadc. Co.,** Nagano – Pres: J. Katsuta. 20.00–15.05.

9) **Broadc. System of Niigata,** 3-18, Kawagishi-cho, Niigata – Pres: E. Horiuchi – 10) **Kyoto Broadc. Co.,** Nakakyo-Ku, Kyoto. Pres: K. Shiraishi. 20.30–17.00. V. by QSL-card.

11) **Sanyo Broadc. Co,** Okayama. Pres: H. Taniguchi – 12) **Nankai Broadc. Co,** Matsuyama. Pres: Y. Yamanaka. 20.30–15.00. V. by QSL-card.

13) **Tokai R. Broadc. Co,** Higashi-Ku, Nagoya. Pres: M. Abo. 20.00–18.00. V. by QSL-card – 14) **San In Broadc. System,** Yonago. Pres: O. Oda. 20.35–15.05 – 15) **R. Kochi Broadc. Co,** Kochi. Chairman: Y. Fukuda.

16) **Chubu-Nippon Broadc. Co,** Shinsakae-machi, Naka-Ku, Nagoya. Te: 24-8111 – Pres: K. Sasabe – 20.30–16.00 – V. by QSL-card. Prgr.schedule free on request.

17) **Tohoku Broadc. Co,** Sendai – Pres: K. Sasaki. 20.30–15.15.

18) **R. Chugoku Co,** Hiroshima – Pres: T. Tsukifuji. 20.30–15.00.

19) **Hokkaido Broadc. Co,** Sapporo, Hokkaido. Te: 3-8181. Pres: K. Abe. Dir. Gen: K. Muriya. 20.30–15.00 – V. by QSL-card.

21) **Fukui Broadc. Co,** Fukui. Pres: H. Kato. Man. Dir. S. Kawasaki. Dir. Gen: Y. Yoshida – 20) **Shikoku Broadc. Corp,** Tokushima. Pres: S. Maekawa. 20.30–16.10.

22) **Yamagata Broadc. Co,** Yamagata. Pres: Y. Hattori. 20.00–14.45. V. by QSL-card – 23) **Nagasaki Broadc. Co,** Nagasaki.

24) **Mizyazaki Broadc. Co,** Miyazaki. Pres: Y. Kuroki. 20.30–15.05. V. by QSL-card – 25) **Yamaguchi Broadc. Co,** Tokuyama. Pres: K. Nomura. 20.30–15.00. V. by QSL-card – 26) **Tokyo Broadc. System,** Main Office: 36 Hitotsugi-cho, Akasaka, Minato-Ku, Tokyo, **Cable:** JOKR. **Te:** 481-8711. Pres: Y. Shikakura. Dir. Gen: Y. Tanaka, J. Imanichi. Dir. Tec: M. Yoshida. Dir. Prgr: F. Murata (Radio), N. Omori (TV). 20.00–16.30 N. 5 min. every h – JOKR Kochirawa Tokyo Hoso desu. E: JOKR This is TBS. V. by QSL-card.

27) **Asahi Broadc. Corp.** Main Office and R.st: Nakanoshima, Kita-Ku, Osaka. TV.st. Dojima, Kita-Ku, Osaka. Tokyo Office: New Asahi Shimbun Bldg, Yurakucho, Chiyoda-Ku, Tokyo. Cable: JONRTV. Te: 231-8001 – **L.P:** Chairman, M. Iijima. Pres: K. Suzuki. Vice-Pres: T. Hirai. Man. Dir. (Sales): T. Tateishi. Man. Dir. (Prgr): K. Hara, Man. Dir. (Gen. Affairs): D. Ato. Dir. (Chief Eng): K. Endoh. Dir. Tokyo Office: M. Kobayashi Dir. Prgr: T. Sudoh, Dir. Tec: Y. Habu. Dir. Gen. Affairs: Y. Fukuda.

D. PRGR: 20.00–17.00. **N:** W 20.50, 21.50, 22.50, 23.55, 00.50, 01.50, 02.50, 03.50, 04.50, 05.50, 06.50, 07.50, 08.50, 09.50, 12.50, 13.50 Sun: 20.50, 21.50, 22.50, 00.50, 02.50, 06.50, 09.50, 12.50, 13.50. ANN: "ABC Asahi Hoso, JONR" – **V.** by QSL-card – Pub: "Radio and TV Asahi", monthly.

28) **Aomori Broadc. Corp,** Aomori – Pres: K. Sakamoto – 20.00–14.50.

29) **Shizuoka Broadc. System,** Shizuoka – Pres: M. Oishi. 20.30–14.30.

30) **RKB Mainichi Broadc. Co,** Fukuoka. Pres: H. Kaneko. 20.45–15.45 – 31) **Kumamoto Broadc. Corp,** Kumamoto. Pres: R. Fukami. D.Prgr. 23.50–04.40 & 08.30–16.30.

32) **Oita Broadc. Sce,** Oita – Pres: Y. Hoshima – 20.30–15.00 – V. by QSL-card.

33) **Nippon Cultural Broadc. Inc,** Shinjuku, Tokyo – Pres: S. Mizuno, Mgr: S. Tomoda. 20.00–16.55 – "Okiki no hoso wa Bunka Hoso 1130kc desu" – V. by QSL-card.

34) **Hokuriku Broadc. Co,** Kanazawa – Pres: I. Saga. 20.30–15.00.

35) **Mainichi Broadc. System, Inc.** – Head Office: 53 Funadaiku-cho, Dojima, Kita-Ku, Osaka. Tokyo Office: Yuraku-cho, Chiyoda-Ku, Tokyo. **Cable:** Mainichihoso Osaka. **Te:** Head Office: 361-8231 –Pres: S. Takahashi. 20.30–16.00. N: every h on the h 21.00–09.00 and 14.00 – **Ann:** "MBS, Mainichi Hoso desu".

36) **Nippon Broadc. System Inc,** Yuraku-cho, Chiyoda-Ku, Tokyo – Pres: N. Shikanai. Dir. Gen: T. Takahashi – 24h – **N. Wrp:** 00.30, 01.30, 03.30, 05.30, 06.30, 07.30, 09.30, 11.30, 12.30, 13.30, 14.30, 15.30, 17.30, 23.30 – "Okiki no Hoso wa 1310kc Shutsu-ryoku 50kW de ookuri shiteiru Nippon Hoso desu" ("This is Nippon Hoso") – V. by QSL-card.

37) **Osaka Broadc. Co,** 27 Umeda-cho, Kita-Ku, Osaka. **Te:** 361-1271

Mgr: T. Maeda. 20.30–17.30 – "Okiki no hoso wa Rajio Osaka desu" – **INT-SIG:** Gong – **V.** by QSL-card. Records accepted.
38) **Wakayama Broadc. Corp,** Wakayama – Pres: K. Maeda. 20.30–15.30. 39) **Nishi-Nippon Broadc. Co,** Takamatsu – Pres: J. Hirai. 40) **R. Kanto,** Oimatsu-cho, Nishi-Ku, Yokohama. Chairman: Y. Isono. Vice Pres: H. Sasaki. Dir. Gen: R. Hirota. 20.00–16.35 – **V.** by QSL-card.
41) **Minaminihon Broadc. Co,** 17, Korai-cho, Kagoshima – Pres: S. Hatanaka – Dir. Gen: M. Yamamoto. 23.50–13.55 – **V.** by QSL-card.
42) **Nihon Shortwave Broadc. Co,** Akasaka, Minato-Ku, Tokyo. **Te:** 481-8151 – Pres: S. Odazima. Dir. Gen: Z. Takano. Mgr: B. Ando. Dir. Tec: S. Ito. Dir. Prgr: H. Otomo. 20.30–15.45 – **N:** 03.30, 08.30, 14.30, 23.30–**SW-schedule:** 1st Prgr.: 20.30-15.45 on 3925, 6055, 9595 kc 20.30-23.00, 08.00-15.45 on 3945 kc JOZ 4 (Sapporo). 2nd. Prgr.: 23.15-07.20 on 3945, 7230 kc (Tokyo), – **ANN:** "Okiki no Hoso wa Nihon Tampa Hoso desu"–**V.** by QSL-card.
50 kW: Nippon Broadc. Co., Tokyo Broadc. Co., **20 kW:** Mainichi Broadc. Co – **10kW:** Mainichi Broadc. Co., Chubu-Nippon Broadc. Co. RKB Mainichi Broadc. Co., (under construction), Nippon Broadc. Co. – **3 kW:** R. Aomori Co., Kita-Nippon Broadc. Co., Hokuriku Broadc. Co., Nishi-Nippon Broadc. Co., R. Kochi Co., – **1 kW:** Tokai Broadc. Co., Shizuoka Broadc. Co., R. Aomori Co. (2), Nagasaki Broadc. Co., – **100 Watt:** Chubu-Nippon Broadc. Co. (2), Tokai Broadc. Co., Shizuoka Broadc. Co. (2), R. Chugoku Broadc. Co., Nagasaki Broadc. Co., Nankai Broadc. Co. – **S.W. tr's:** 50 kW (3), 10 kW (2) Nippon SW Broadc. Co. 1 kW: R. Gifu Broadc. Co. – **FM:** Tokai 1 kW.
AKG, Austria: Bunka Hoso Co., Nippon Hoso, Co., Tokyo Broadc. System, Chubu Nippon Hoso Co., R. Chugoku Co: studio equip. (recorders, microphones).

FM-TOKAI (Exp. st. of Tokai Univ).
ADDR: Akasaka, Minato-ku, Tokyo.
STATION: FM 84.5Mc 1kW – **HOME SCE:** 20.30–15.35. **English:** W 15.15–15.30. Sun 14.00–14.30, 15.15–15.30 – **V.** by QSL-card.

FAR EAST NETWORK (AFRTS)

The network serves the members of the US-Forces serving in the F. East – **Authority:** The st's in Japan broadcast by authority of the Commander, US Forces, Japan, in cooperation with the Japanese Radio Regulatory Bureau. St's are linked by land line, and operated 24 h daily – **ADDR:** Headquarters, Far East Network, APO 67, San Francisco. **Te:** Tokyo 516-6-2234 – **L.P:** Chief: G. L. Stanton, Lt. Col. Dir. Prgr: J. F. Buey. Dir. Tec: J. C. Olsen.

STATIONS:

	kc	kW		kc	kW		kc	kW
Tokyo	810	10	Itazuke	1550	2.5	Sasebo	1570	0.25
Nagoya	1490	10	Wakkanai	1550	0.1	Misawa	1580	0.25
Iwo Jima	1500	0.1	Chitose	1570	0.25	Twakuni	1580	1

Short Waves:* Tokyo:

2910 kc	101.0 m	10 kW:	07.30–22.20	
3910 –	76.73 –	1 – :	22.30–07.20[1]	
6155 –	48.74 –	10 – :	24 h[2]	
11750 –	25.53 –	10/1 – :	22.30–07.20, 07.30–22.20[3]	
15260 –	19.66 –	1 – :	24 h[4]	

N: Every h on the h.
[1] exc. Mo 15.05–19.58. [2] exc. Thurs 15.05–19.58. [3] exc. Tues 15.05–19.58. [4] exc. Wed 15.05–19.58. * Power and direction vary to meet point to point commitments for rebroadc. from AFRTS st's in Japan, Korea, Okinawa, Taiwan, Iwo-Jima.
ANN: "This is the Far East Network... Far East Network, Tokyo (Chitose, Itazuke etc.)" plus freq's on shortwave – **V.** by QSL-card – **PUB:** Master schedule (monthly).

JORDAN

L.T: GMT+2 h – **Pr.L:** Arabic, English, Spanish.

THE BROADCASTING SERVICE OF THE HASHEMITE KINGDOM OF JORDAN (Go.)

ADDR: P.O. Box 909, Amman. **Cable:** Broadcasting. **Te:** 23101 – **L.P:** Dir. Gen. of National Guidance & Information: H. E. Sherif Abdul Hanna Sharaf. Asst. Dir. Gen. Eng: A. Bayat. Dir. Tec. A. Bayat.

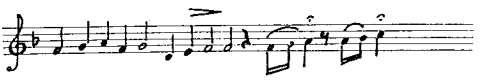
STATIONS: 677kc Jerusalem. Others, Amman.

kc	m	kW	kc	m	kW	kc	m	kW
800	375.0	100	9530	31.48	100	11870	25.27	100
677	443.0	20	9560	31.38	100	11970	25.06	100
6020	49.83	3	9740	30.80	100	15170	19.78	100
7155	41.92	100	11810	25.40	5	15345	19.55	100

The Marconi Company Ltd, GB, delivered: 1×7.5kW, 2×100kW sound-tr's.

HOME SERVICE
Amman: Arabic: 03.30–07.30 on 800/6020/7155/11810kc; 07.30–14.00 on 800/6020/9530/11810kc; 14.00–23.00 on 800/6020/7155/9530/11810 kc. **N:** 05.00, 06.00, 08.00, 12.00, 13.00, 16.00, 17.00, 19.00, 21.00, 22.00 – **Jerusalem: English:** 11.00–12.00, 15.00–17.00. **N:** 11.30, 16.00. **Arabic:** 12.00–15.00, 17.00–23.00. **N:** 12.00, 17.00, 19.00, 21.00, 22.00.

FOREIGN SERVICE
So. American Sce: Arabic, Spanish: 23.00–01.00 on 15170 (stand by 11870, 15345kc) – **N:** Spanish 23.00, Arabic 00.30.
No. American Sce: Arabic, English: 01.15–03.15 on 9560 (stand by 9530kc) – **N:** English 01.16, Arabic 02.45.
ANN: Arabic: "Hunna Amman Ithaatul Mamlakate Al Urdoniete Al Hashemieh" – E: "This is Amman the Broadcasting Service of the Hashemite Kingdom of Jordan" – Sp: "Aqui Radio Amman, R.Dif. Del Reino Hashemita De Jordania".
INT-SIG: Clarinet, piano



V. by QSL-card and letter to Box 909 – Records accepted – **F.PL:** Two 100kW mw-tr's at Ramallah (April 64). 100 kW mw-tr. Amman (Dec. 64).

Accurate information
Beautiful expression
Cheerful programs

TV: **JONR-TV 6** CH
RADIO: **JONR 1010** KC

ABC

abc ASAHI BROADCASTING CORP.

Main Office & Radio Studio: 2 Nakanoshima, Kita-ku, Osaka
Television Studio: Naka 1-chome, Dojima, Kita-ku, Osaka
Tokyo Office: 2-chome, Yuraku-cho, Chiyoda-ku, Tokyo

NIHON SHORT-WAVE BRORDCASTING CO., LTD.

50KW
JOZ –3.925Mc/TOKYO
JOZ$_2$–6.055Mc/ 〃
JOZ$_3$–9.595Mc/ 〃
10KW
JOZ$_4$–3.945Mc/SAPPORO
TIME <05:30→08:00, 16:50→00:45>(JST)
JOZ$_5$–3.945Mc/ TOKYO
TIME <08:00→16:50>(JST)
JOZ$_6$–7.230Mc/ TOKYO
TIME <08:00→16:50>(JST)

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VERIFICATION BY LETTER OR Q.S.L. CARD

NIHON TANPA HOSO
日本短波放送

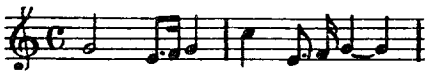
HEAD OFFICE : AKASAKA, MINATO-KU, TOKYO, JAPAN
BRANCH OFFICE: KITAHAMA, HIGASHI-KU, OSAKA, JAPAN

KOREA (Peoples Democratic Republic)

L.T: GMT+9 h – **Pr.L:** Korean.
ADDR: Korean Central Broadcasting Committee, Pyongyang.
STATIONS: Medium Waves:

625kc 480m	685kc 438m	820kc 365m	1080kc 278m
660 – 454 –	785 – 382 –	1045 – 286 –	

Short Waves: 2850kc 105.3m – 5044kc 59.48m – 6195kc 48.43m – 6250kc 48.00m – 7225kc 41.52m – 9752kc 30.77m – 15240kc 19.69m.
HOME SERVICE in Korean:
1st Prgr: 19.50–17.00 on 785/2850/6195kc – **2nd Prgr:** 19.50–17.00 on 820/1080/6250kc.
FOREIGN SERVICE on 820/1045/1080/6250kc: **Chinese:** 08.00–08.30 – **Japanese:** 00.00–00.30, 13.00–13.30 – **Korean** (for Koreans in Japan): 22.30–23.00, 10.30–11.00 (on 785/2850/6195kc) – **English:** 12.00–13.00 on 820/5044/9752kc to So. Ea. Asia, 20.00–21.00 on 820/7225/9725kc to Near East/Europe, 03.00–04.00 on 820/9752/15240kc to Latin America.
ANN: E: "This is the Korean Central Broadcasting Station, Pyongyang" – V. by letter.



KOREA (Republic of)

L.T: GMT+9 h – **Pr.L:** Korean.
THE KOREAN BROADCASTING SYSTEM (Go.)
ADDR: Bureau of Broadc. Management, Ministry of Public Information, Seoul. Te: 72-7973 – **L.P:** Bureau Dir: C. Hong. Chief Eng: I. K. Lee. Overseas Sce: Dir. (HLSA): J. H. Lee. Home Sce. St. Dir. (HLKA): K. K. Yoon. Dir. TV (HLCK): J. Y. Kim.
STATIONS:
Medium Waves: ° Short Wave.

Name	Call	kc	kW	Name	Call	kc	kW
Chonju	HLKF	570	10	Chongju	HLKQ	920	1
Seoul	HLSA	600	100	Chulwon	HLCO	920	1
Choonchun	HLKM	650	1	Andong	HLCR	940	1
Masan	HLKD	650	1	Suwon	HLGA	°970	250
Kwangju	KLKH	660	10	Sokcho	HLCS	1030	0.3
Seoul	HLKA	°710	100	Namwon	HLKL	1030	1
Taegu	HLKG	740	10	Hwachun	HLCG	1030	1
Cheju	HLKS	800	1	Samchok	HLCI	1120	1
Kangnung	HLKR	860	10	Sogwipo	HLCF	1320	1
Mokpo	HLKN	860	1	Yosu	HLCY	1340	0.25
Taejon	HLKI	880	10	Pohang	HLCP	1420	0.25
Pusan	HLKB	890	50				

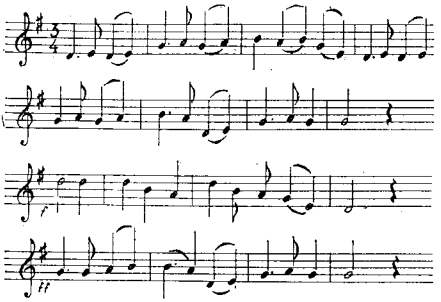
Brown Boveri, Switzerland: 2×250kW mw-tr's (Nam Yang).
Short Waves:

Call	kc	m	kW	Call	kc	m	kW
1) HLK50	2510	119.50	10	2) HLK55	11950	25.10	50
1) HLK51	3910	76.73	5	2) HLK41	15125	19.83	50
1) HLK22	5975	50.21	10	2) HLK42	15335	19.56	50
2) HLK52	6035	49.71	10	2) HLK34	15370	19.52	50
1) HLK30	7190	41.72	1	2) HLK46	17815	16.84	50
2) HLK5	9640	31.12	50	2) HLK60	21590	13.90	50
2) HLK6	11925	25.17	50	1) Seoul 2) Suwon.			

FM Link: Seoul, Suwon, Taejon, Pusan, Masan, Iri, Huksongsan, Chonju, Kumosan, Kowongyunsan: 44.3–106.8Mc 0.6/2.5kW.
HOME SERVICE:
1st Prgr. (Korean): 20.00–16.30 – **2nd Prgr.** (Korean): 20.00–16.30.
FOREIGN SERVICE:
I=No. Korea; II=Japan; III=Gen. Overseas Sce; IV=F. East; V=Europe. E=English; F=French, K=Korean, J=Japanese, C=Chinese, R=Russian, Sp=Spanish. D=Nov/March, M=March/May and Sept/Nov. S=May/Sept.

Times	D(kc)	M(kc)	S(kc)	Area	L.
21.00–21.30	5975	9640	9640	II	K
21.30–22.00	5975	9640	9640	II	J
22.00–22.30	5975	9640	9640	I	C
22.30–22.45	5975	9640	9640	I	R
02.00–02.30	9640	9640	9640	II	K
02.30–03.00	9640	9640	9640	II	J
03.30–04.00	9640	6035	9640	III	Sp
04.00–04.30	9640	6035	970/6035	I	C
05.30–06.00	11925	15125	11925	III	E
07.00–07.30	11925	15125	11925	V	F
07.30–08.00	11925	15125	11925	III	E
09.00–10.00	7190	6035	9640	II	J
10.00–10.30	7190	6035	15125	I	C
10.30–11.00	7190	9640	9640	III	E
11.00–11.30	6035	9640	970/6035	I	C
12.00–12.30	6035	6035	970/6035	II	K
12.30–13.00	6035	6035	970/6035	II	J
13.00–13.30	6035	9640	9640	I	C
13.30–13.45	11925	9640	9640	I	R
14.00–14.30	11925	9640	15125	IV	E
14.30–15.00	11925	15125	15125	IV	F
15.00–15.30	11925	15125	15125	IV	C
16.45–17.30	11925	15125	970/6035	I	C

NEWS: English 05.30, 07.30, 10.30, 14.00. **French** 07.00, 14.30. **Spanish:** 03.30 – **Korea Today** (English): 05.45, 07.45, 10.45, 14.15.
INT-SIG: Foreign Sce: Korean Folk Music played as Yang-geum with orchestra:



V. by QSL-card. Rp. Re. to Int. St. KBS, Seoul.

CHRISTIAN BROADCASTING SYSTEM (Non-Com. Independent).
FI: By donations from rlg. groups and interested individuals.
ADDR: 91 Chongno 2-Ka, Seoul. Te: 3-2761 – **L.P:** Dir: E. O. De Camp. Mgr: Y. H. Choi. Dir. Tec: Y. H. Park.
STATIONS:

HLKY[1]	840 kc 357 m 10 kW	HLCL[4]	1000 kc 300 m 0.25 kW
HLKT[2]	1000 – 300 – 0.25 –	HLMC[5]	1400 – 214 – 1 –
HLKP[3]	1000 – 300 – 0.25 –	HLKY-FM 104Mc	

[1] Seoul. [2] Taegu. [3] Pusan. [4] Kwangju. [5] Iri.
HOME SCE: Korean: 21.00–24.00, 03.00–06.00, 08.00–14.30 – **N, Wrp:** 21.50, 22.50, 02.50, 03.50, 04.50, 08.50, 09.50, 11.50, 14.25 – **English:** Sun 23.00–02.00 (on HLKT, HLKP, HLCL, HLCM to 01.05) rlg. prgr.
ANN: "This is CBS, The Christian Broadc. System, HLKY, Seoul". **V.** by letter. Records accepted – **F.PL:** St. at Taejon – **PUB:** Special Music prgr. (monthly).

RADIO STATION HLKU (Comm.)
ADDR: No. 3, 3-Ka, Choong-Ang Dong, Pusan.
STATION: 1035kc 1kW – **HOME SCE. in Korean:** W 21.30–01.30, 04.00–06.00, 09.00–14.30. Sun 21.30–06.00, 09.00–14.30.

RADIO STATION HLKX (Religious, Educational)
Operated by the Evangelical Alliance Mission, 2845 W. McLean Av, Chicago 47, Ill. USA – **FI:** By contributions and free-will offerings – **ADDR:** Box 16, Inchon. **Cable:** Team Radio. Te: 2910 – **L.P:** St. Mgr: R. H. Pence.
STATION: 1060kc 285m 50kW.
HOME SCE. in Korean, Chinese, English: 20.00–23.30, 05.00–17.00 (Sat/Sun 19.45) – **ANN:** E: "This is the Voice of the Gospel – Team Radio HLKX, Inchon, Korea – a missionary project of the Evangelical Alliance Mission, Chicago, Ill." – **INT-SIG:** Chimes (A, F) – **V.** by QSL-card – **PUB:** Prgr.schedule free. HLKX-echoes (quarterly) – **F.PL:** 24 h operation, sw.

SHORT WAVE MAGAZINE
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One of the world's leading Amateur Radio publications covering transmission, reception, operating results, competitive working, design and construction. Regular features include "DX Commentary" and "VHF Bands" outstanding in their fields, Issues wide range of Achievement (DX) Certificates– FBA (Four Band Award), PRA (Polar Regions Award), WBC (Worked British Counties), WFE (Worked Far East), WNACA (Worked North American Call Areas) and VHFCC (VHF Century Club).
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Specimen Copy: Five IRC's.

SHORT WAVE MAGAZINE LTD.,
55, Victoria Street, London S.W. 1, England.

AMERICAN FORCES KOREA NETWORK

ADDR: Headquarters U.S. Army Element, American Forces Korea Network: APO 301, S. Francisco, Calif, USA. **Te:** Yongsan 2495 – **L.P:** Commanding Officer: Lt. Col. Infantry: W. G Newkirk. Dir. Prgr: Ed. Sanchez. Dir. Tec: T. J. Daugherty.

STATIONS: 24 h	kc	kW		kc	kW
Seoul[1]	560	5	Taegu[6]	1360	1
Kwanju*	1150	0.25	Unchon-Ni[7]	1400	1
Chunchon*	1150	1	Wonju*	1440	0.25
Tongduchen[2]	1200	1	Kunsan[8]	1440	1
Pusan[5]	1250	1	Taejon*	1485	0.25
Osan[3]	1360	1	Munsan-Ni[4]	1510	1

[1] "Vagabond", [2] "Bayonet", [3] "Comet", [4] "Cavalier", [5] "Homesteader", [6] "Kilroy", [7] "Gypsy", [8] "Mercury", * rel. 560kc.

N: Every h on the h – **ANN:** "This is the American Forces Korea Network". Local identification: "This is R. "Vagabond" in Seoul" etc – **V.** by QSL-card and letter. Re. to Hqs. AFKN, APO 301, S. Francisco, Calif, USA. Rp. Records accepted – **F.PL:** Microwave for TV and AM.

KUWAIT

L.T: GMT+3 h – **Pr.L:** Arabic.

KUWAIT BROADCASTING & TELEVISION SERVICE (Go.)

ADDR: P.O. Box 397, Kuwait. **Cable:** Kuwait Broadcasting. **Te:** 35011 – **L.P:** Ministry of Guidance and Inf: H. E. Shaikh Mubarak Al-Abdullah Al-Ahmad Al-Sabah. Under Secr: A. al-Saqqaf. Asst. Under Secr: M. Al Shatti. Dir. Adm: Sa'id Al Rifai. Dir. Tec: R. Karrer (sound), A. Kesteloot (TV). St. Consultant: M. Ghosain.

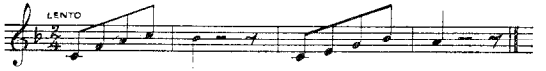
STATION mw: 1/10/100kW; sw: 1/10/50kW (6055kc also 100kW)

kc	m	kc	m	kc	m	kc	m
1130	265.0	*4967.5	60.25	11940	25.12	17750	16.90
1345	223.2	**6055	49.55	°15150	19.80	21525	13.94

* Throughout the year; ** Wi. only; ° Su. only.

Brown Boveri, Switzerland delivered 4 sw-tr's 250kW – **The Marconi Company Ltd, G.B.** delivered two 100kW mw-tr's.

HOME SCE. in Arabic: 03.00–21.00 – **N, Wrp:** 03.00, 04.00, 05.00, 10.00, 13.00, 17.00, 19.00, 21.00 – **Mbg:** Fri 05.30, Sun 16.15 – **INT-SIG:** Violin.



ANN: "Huna I'tha't Al Kuwait" – **V.** by QSL-card. Records accepted. **F.PL:** 100kW sw-tr. (1964). One 100kW mw-tr. (1964), four 250kW sw-tr's, three 500kW mw-tr's (1965).

LAOS (Kingdom of)

L.T: GMT+7 h – **Pr.L:** Laotian, French.

RADIODIFFUSION NATIONALE LAO (Go.)

ADDR: Vientiane. **Cable:** Radio Lao. **Te:** 2457 – **L.P:** Dir. Gen: Bounthamaly. Dir. Tec: Viengsavanh.

STATIONS: 1340kc 223.8m 5kW – 6150kc 48.78m 10kW – 7145kc 41.99m 1kW.

HOME SCE. in Laotian, French: 23.30–01.00, 05.00–06.00, 10.30–14.00.

N: Laotian: 00.00, 05.15, 12.00, **French:** 05.30, 12.30 – **L.L. (English):** 05.45.

ANN: F: "Ici Radiodiff. du Royaume du Laos" – **INT-SIG:** Music on Khéne, instrument of Bamboo – **V.** by letter. Rp – **F.PL:** Nat. netw. with 6 reg. st's projected.

LEBANON

L.T: GMT+2 h – **Pr.L:** Arabic, French, English.

LEBANESE BROADCASTING STATION (Go.)

ADDR: R. Lebanon, Ministry of Information, Orientation and Tourism, Beirut, Lebanon. **Cable:** Radioliban. **Te:** 251880 – **L.P:** Dir. Gen: B. Dib. Dir. of Broadc: H. Al Hassan. Dir. Tec: J. Rouhayem. Dir. Prgr: N. Khoury.

STATIONS: 989kc 10kW, others 100kW

836kc 359 m – 11715kc 25.63m – 15295kc 19.62m
989 – 303.3 – – 15235 – 19.69 –

Telefunken AG, Germany: delivered 100kW mw-tr, studio equip. (recorders).

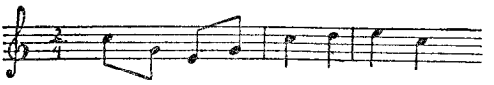
HOME SCE: Prgr. I (Arabic): 836kc: 04.30–07.30, 09.25–22.30. On 989kc: 20.00–22.30. **N:** 05.00, 07.00, 11.00, 14.00, 17.00, 18.00, 20.00, 21.55.

Prgr. II: 989kc: **French:** 05.30–07.00, 11.30–12.30, 17.30–20.00. **N:** 05.30, 12.30, 18.15 – **English:** 15.00–16.00. **N:** 15.00 – **Arabic, English, French:** 07.00–09.30, 12.30–15.00, 16.00–17.30.

FOREIGN SCE:

18.30–19.55 on 11715kc to Africa in **English, Arabic, French;** 20.00–21.25 on 15235kc to So. America in **Portuguese, Arabic, Spanish;** 21.25–22.30 on 15295kc to No. America in **English, Arabic, Spanish.**

ANN: Arabic: "Houna Beyrouth, Dar al'Iza'a al Loubaniat" – F: "Ici Beyrouth, Station de Radiodiff. Libanaise" – E: "This is the English prgr. of the Lebanese Broadc. Station in Beirut" – Sp: "Aqui Beyrouth, el Libano transmitiendo pare America del Sur (or: America del Norte)" – P: "Aqui Beirut, o Libano falando ao Brasil" – **V.** by letter. Rp. – **INT-SIG:** Guitar.



MACAU (Portuguese China)

L.T: GMT+8 h – **Pr.L:** Portuguese, Chinese, English.

EMISSORA VILA VERDE (Priv.-Comm.)

FI: By adv – **AD:** Only on 1200kc spots or 15–30 min. prgr's – **ADDR:** Radio Vila Verde Macau. **Cable:** Vila. **Te:** 3355.

STATIONS: 1003kc 298m 1kW – 735kc 408m 10kW.

HOME SCE: Chinese: 23.00–16.00 735kc – **Portuguese:** 12.00–16.00 1003kc.

ANN: P: "Aqui Emissora Vila Verde Macau" – **INT-SIG:** chimes – **V.** by letter or QSL-card.

MALAYA (Federation of Malaysia)

L.T: GMT+7½ h – **Pr.L:** Malay & English.

RADIO MALAYA (Go.)

FI: by state: Comm. sce. was inaugurated Jan. 1st 1962 – **ADDR:** Dept. of Radio, P.O. Box 1047, Kuala Lumpur. **Cable:** Broadcasts. **Te:** 82241 – **L.P:** Dir: Dol Ramli. Dep. Dir. and Contr. of Prgrs: Murtadza Za'ba. Asst. Contr. of Prgrs: Hashim Hassan. Chief Eng: Kirpal Singh.

M = Malay, I = Indian, C = Chinese.

STATIONS:	kc	kW	L		kc	kW	L
Johore Baru	570	10	M	Johore Bahru	940	10	E
Kuala Lumpur	590	20	M	K. Trengganu	960	0.3	M
Penang	660	10	M	Malacca	1005	10	M
Kota Bahru	700	10	M	Penang	1040	10	C/I
Ipoh[1]	740	2[4]	M/I	Kuala Lumpur	1070	20	C/I
Kuantan	810	0.3[4]	M	Kuantan[2]	1140	5	E
Kota Bahru	840	10	E	Malacca	1160	10	E
Penang	860	10	E	Ipoh[3]	1200	10	C/I
Kuala Lumpur	880	20	E	Johore Bahru	1220	10	C/I
Ipoh[2]	910	2*	E/C	Malacca	1280	10	C/I

[1] to be 550kc, [2] to be 740kc, [3] from Aug. 1964 [4] 10kW from Aug. 1964.

Short Waves: * Kuala Lumpur (Kajang). ** Penang.

kc	m	kW	L	kc	m	kW	L
4790**	62.63	10	M	7200**	41.67	10	E
4985**	60.18	10	E	7220	41.55	10	°
6025*	49.79	5	C	7280	41.21	10	M
6105	49.14	10	°	9515	31.53	10	M
6135*	48.90	10	I	9635	31.14	10	°
7110	42.19	10	°	11900	25.21	10	°

° **"Voice of Malaya"** (to be encreased to 50kW).

The Marconi Company Ltd, G.B. delivered 2×2kW mw-tr's – **Nippon Electric Co. Ltd, Japan:** 50kW sw-tr.

HOME SCE. in Malay, English, Chinese, Indian.

Malay on 590/660/700/740/810/960/**7280/9515kc:** Mo, Wed: 22.30–03.00, 03.30–06.30, 07.30–15.30; Tues, Thurs: 22.30–01.30, 02.30–03.00, 04.30–06.30, 08.30–15.30; Fri: 22.30–15.30; Sat/Sun: 22.30–16.30 – **N:** 00.00, 01.00, 06.00, 09.30, 12.30, 14.30 – **Comm. Prgr's:** 23.00, 04.30(Fri 06.00), 09.30, 12.00.

English on 840/860/880/910/1160/**7200kc:** Mo–Thurs: 22.30–02.45, 05.30–06.30, 08.40–15.30. Fri: 22.30–01.30, 05.30–06.30, 09.30–15.30. Sat: 22.30–01.30, 05.30–16.30. Sun: 22.30–16.30 – **N:** 23.30, 00.30, 06.00, 09.30, 11.30, 14.00 – **Comm. Prgr's:** 22.30, 05.30 (Sun 04.30), 09.30 (Sat/Sun 08.30), 12.30.

Chinese on 910/1040/1070/1280/**6025kc:** Mo, Wed: 23.00–02.45, 04.30–05.45, 07.30–08.30, 09.30–15.30; Tues, Thurs: 23.00–01.30, 04.30–05.45 (Thurs 07.30–08.30), 09.30–15.30; Fri: 23.00–02.45, 04.30–05.45, 09.30–15.30; Sat/Sun: 23.00–16.30 – **N:** 23.30, 24.00, 00.30, 01.00, 05.20, 05.35, 09.30, 12.30, 13.30, 14.30, 15.20.

Indian on 740/910/1040/1070/1280/**6135kc:** Mo, Wed: 22.00–23.00, 05.45–07.30, 09.30–14.30; Tues, Thurs, Fri: 22.00–23.00, 03.00–04.30, 05.45–07.30, 09.30–14.30; Sat/Sun: 22.00–23.00, 01.30–03.30, 05.45–07.30, 09.30–14.30 – **N:** 22.45, 06.00, 09.30, 11.30, 14.00.

OVERSEAS SCE: "Voice of Malaya".

23.30–01.00, 07.00–10.30, 14,30–16,30 on 6105/7110/9635/11900kc.

English: 00.00–00.30, 07.30–08.00. **N:** 00.00, 07.30 – **Indonesian:** 23.30–24.00, 08.00–10.30, 14.30–16.30. **N:** 23.45, 08.00 – **Mandarin:** 00.30–01.00, 07.00–07.30. **N:** 00.30, 07.15.

ANN: Malay: "Ini-lah R. Malaya". E: "This is R. Malaya"– **INT-SIG:** First bar of Nat. Anthem "Negara Ku" (Chimes) – **V.** by letter. Records accepted – **F.PL:** 3×10kW mw-tr's at Ipoh (August 64); 2×5kW mw-tr's at Kuantan (Dec 64); one 10kW and one 50kW tr

at Kajang under construction for Overseas Sce – **PUB:** Prgr.sched. for Home Sce. (Malay, English, Mandarin, Tamil) and Overseas Sce. (Indonesian, Mandarin, English) weekly.

MONGOLIA (Peoples Rep.)

L.T: GMT+8 h – **Pr.L:** Mongolian.

ULAN BATOR RADIO (Go.)

FI: By Go. limited adv. allowed – **ADDR:** R. Ulan Bator, Ulan Bator, The Mongolian People's Republic. **Cable:** Mongolian Radio.

STATIONS:

227kc	1322 m	150kW	5960kc	50.34m	50kW
4070 –	73.73 –	25 –	6135 –	48.90 –	25 –
5067 –	59.21 –	25 –	10885 –	27.60 –	25 –

HOME SCE:

1st Prgr: 22.55–15.05 on 227/5067/5960/10885kc – **2nd Prgr:** 09.00–14.05 on 4070/6135kc (Mongolian only).

ANN: "Ankhararai Ulanbatras jarsj baina" (Attention. This is Ulan-Bator Calling) – **V.** by letter – **INT-SIG:**

NEPAL

L.T: GMT+5.40 h – **Pr.L:** Nepali, Newari, Hindi, English.

RADIO NEPAL (Go.)

AD: between 07.20–09.20. **ADDR:** Singha Durbar, Kathmandu. **Te:** 11569 – **L.P:** Dir: P. M. Singh, Superintending Eng: K. B. Khatry.

STATIONS: 1500kc 0.25kW – 7105kc 42.22m 5kW – 4600kc 65.22m 5kW (test).

HOME SCE: 02.20–04.20, 07.20–09.20 (7105kc only), 13.20–15.20.

N: Nepali: 02.50. **English:** 03.00, 09.00.

EXTERNAL SCE: Sat 01.20–02.05 on 7105kc. Most used times are near 02.00 and 15.00.

ANN: Nepali: "Yo Radio Nepal Ho" – **INT-SIG:** Instruments used: Conch-Shell, Violin, Piano and Jal-Tarang – **V.** by letter.

F.PL: New Studio Bldg. in 1964. 50kW power planned. Home Sce. on 60m. External Sce. on 31 or 25m.

PAKISTAN

L.T: We. Pakistan GMT+5 h. Ea. Pakistan GMT+6 h – **Pr.L:** Urdu, Bengali.

RADIO PAKISTAN (Go.)

ADDR: 71, Garden Rd, Karachi-3. **Cable:** Digbrocast. **Te:** 70263. **L.P:** Dir. Gen: Zahur Azar, CSP. Dept. Dir. Gen. (I): A. Nasri. Dept. Dir. Gen. (II): S. A. Hafeez. Dir. Prgr. Planning: A. Butt. Dir. of Liaison: A. M. Chagla. Dir. of Adm: K. A. Mukhtar. Adm. Officer: M. H. Shah.

ADDR: 23-Victoria Rd, Karachi-4. **Cable:** Cebrocast. **Te:** 54272. **L.P:** Chief Eng: R. Ahmed. Dep. Chief Eng. (I): B. Ahmed. Dep. Chief Eng. (II): S. A. Aziz.

STATIONS:

Medium Waves:	kc	m	kW		kc	m	kW
Peshawar	580	517.2		Rangpur	1050	285.7	
Quetta	750	400	1	Lahore	1090	275.2	5
Peshawar	790	379.7	10	Sylhet	1140	263	
Karachi I	830	361.4	10	Rawalpindi	1150	260.8	10
Chittagong	870	344.8	1	Dacca I	1170	256.4	5
Hyderabad	1010	297	10	Rajshahi	1080	277.7	1

In addition to the freq's listed above other medium wave freq's registered for unscheduled experimental transmissions.

Short Waves: Karachi: II/III=50kW, IV/V=10kW.

kc	m	kc	m	kc	m	kc	m
2420	124.00	7160	41.90	9750	30.77	15255	19.67
3395	88.37	7200	41.67	9755	30.76	15270	19.65
3915	76.63	7225	41.52	11650	25.75	15275	19.64
3945	76.05	7263	41.30	11672	25.71	15325	19.58
3955	75.85	7270	41.26	11725	25.58	15335	19.56
4807	62.41	7275	41.24	11740	25.53	15360	19.53
4895	61.29	7280	41.21	11770	25.49	17710	16.94
4910	61.10	7290	41.15	11795	25.43	17715	16.93
4935	60.79	7295	41.12	11800	25.42	17745	16.91
4980	60.25	9484	31.63	11810	25.40	17750	16.90
9958	50.17	9545	31.43	11845	25.33	17755	16.90
5900	50.08	9560	31.38	11885	25.24	17760	16.89
6035	49.71	9595	31.27	11910	25.19	17770	16.88
6070	49.42	9614	31.20	11914	25.19	17835	16.82
6075	49.38	9630	31.15	11920	25.17	21570	13.91
6235	48.12	9640	31.12	15135	19.85	21580	13.90
6245	48.04	9645	31.10	15145	19.81	21590	13.90
7010	42.80	9695	30.94	15155	19.80	21630	13.87
7096	42.27	9705	30.91	15160	19.79	21690	13.83
7130	42.08	9737	30.81	15192	19.75		
7150	41.96	9740	30.80	15205	19.73		

Dacca II=7.5kW, Dacca III=10kW.

2350	127.66	6075	49.38	9615	31.20	17640	17.00
3325	90.23	6090	49.26	9645	31.10	17710	16.94
3950	75.95	6112	49.08	9750	30.77	17720	16.93
3955	75.86	6120	49.02	11725	25.59	17730	16.92
3965	75.66	7140	42.01	11730	25.58	17825	16.82
4790	62.62	7150	41.90	11890	25.23	17835	16.82
4807	62.41	7225	41.52	15160	19.79	17890	16.77
4937	60.78	7263	41.30	15265	19.66	21465	13.98
5035	59.58	7278	41.22	15270	19.65	21630	13.87
5970	50.25	7284	41.19	15285	19.63	21685	13.83
5980	50.17	9605	31.23	15335	19.56		
6065	49.46	9614	31.20	15550	19.29		

Lahore II=1kW.

2400	125.00	4807	62.41	6138	48.88	9645	31.10
3335	89.96	6025	49.80	7225	41.52	11800	25.42
3915	76.63	6030	49.75	7270	41.26	11840	25.34
4785	62.70	6075	49.38	7284	41.19		

Rawalpindi II=10kW, **Peshawar II=10 kW.**

2460	121.95	4895	61.28	2320	129.31	6120	49.02
3259	92.53	9730	30.83	4775	62.82	7130	42.07
7110	42.19			4935	60.80	9600	31.25

Quetta: 3915 kc 76.64 m – 5970 kc 50.25 m

MEDIUM WAVE PROGRAMMES:

Karachi (Urdu, English, Bengali): 01.30–03.30, 06.30–10.00 (Sun 01.30–10.00), 11.30(Fri, Sat, Sun 12.00)–17.30.

Lahore (Urdu, English, Punjabi): 01.30–03.00(Mo, Thurs 03.30, Sun 05.00), 06.30–08.30, 12.00–17.30.

Rawalpindi (Urdu, English, Pothohari): 01.30–03.00(Sun 05.00), 07.00–08.30, 11.30–17.00.

Peshawar (Urdu, English, Pushto): 01.30–03.00(Fri, Sun 04.00), 07.00 (Fri, Sun 06.30)–08.30, 12.00–17.30.

Hyderabad (Urdu, English, Sindhi): 02.00–03.30(Sun 05.00), 07.00–08.30, 12.00–17.00.

Quetta (Urdu, English, Pushto, Baluchi): 11.30–17.00.

Dacca (Urdu, English, Bengali): 01.00–03.00(Fri, Sun 03.30), 07.00 (Sun 06.45, Fri 07.30)–09.00, 11.00–16.30.

Rajshahi, Chittagong, Sylhet (Urdu, English, Bengali): 11.00–16.30.

Abbreviations: K=Karachi, L=Lahore, R=Rawalpindi, P=Peshawar, Q=Quetta, D=Dacca, H=Hyderabad, RA=Rajshahi, C=Chittagong, S=Sylhet.

Nat. Music is broadcast daily from each st. of R. Pakistan on the chunks other those reserved for fixed point items, spoken word items and N.

NEWS: National: English: 02.15 K, L, R, P, H, D – 08.10 K, L, R, P, H, D – 12.10 K, L, R, P, H, D, RA, C, S – 15.00 K, L, R, P, H, Q, D, RA, C, S – **Local:** 13.25 K, 12.25 L, R.

Urdu: 02.00 K, L, R, P, H, D – 08.00 K, L, R, P, H – 12.00 K, L, R, P, H, Q – 14.45 K, L, R, P, H, Q, D, RA, C, S – **Local:** 13.15 K, 12.20 L, R, 12.30 P, 13.00 Q, 12.55 D.

Bengali: 01.45–02.00 K, D; 08.10–08.20 K, D; 14.00–14.15 K, D, RA, C, S – **Local:** 12.50–12.55 D, RA, C, S.

Pushto: 02.50, 08.20, 12.20 K (for We. Pakistan), P – **Local:** 12.30 Q, 13.45 P.

Sindhi: 02.50, 12.20 H – **Balochi:** 13.20–13.30 Q – **Local** 13.30–13.35 Q – **Kashmiri:** 12.35–12.45 K.

SHORT WAVE PROGRAMMES

Karachi to We. Pakistan: 01.30–03.30 on 4980/6070kc, 03.30–07.00 (Sun) on 6070/4989kc, 07.00–10.00 on 7275/9645kc, 12.00–12.30 on 7130/6245kc 12.35–13.20 on 7010/9750kc, 13.20–13.30 on 4945/6235kc, 14.00–15.45 on 4945/6245kc.

01.30–01.45	Rlg. Prgr.	08.30–09.00	Karachi Prgr.
01.45–02.00	N. in Bengali	09.00–10.00	Comm. Service
02.00–02.15	N. in Urdu	12.00–12.10	N. in Urdu
02.15–02.30	**N. in English**	12.10–12.20	**N. in English**
02.30–02.50	Rlg. Prgr.	12.20–12.30	N. in Pushto
02.50–03.00	N. in Pushto	12.35–12.45	N. in Kashmiri
03.00–03.30	Karachi Prgr.	12.45–13.20	Karachi Prgr.
06.30–07.00	Karachi Prgr.	13.20–13.30	N. in Balochi
07.00–08.00	Comm. Service	14.45–15.00	N. in Urdu
08.00–08.10	N. in Urdu	15.00–15.15	**N. in English**
08.10–08.20	**N. in English**	15.15–15.45	Nat. Hookup &
08.20–08.30	N. in Pushto		K. Prgr.

Karachi to Ea. Pakistan: 01.30–02.50 on 9645/11885kc, 07.00–08.20 on 15325/17760kc, 12.00–12.20 on 17750/21590kc, 14.00–15.45 on 11672/15335kc.

01.30–01.45	Rlg. Prgr.	08.10–08.20	**N. in English**
01.45–02.00	N. in Bengali	12.00–12.10	N. in Urdu
02.00–02.15	N. in Urdu	12.10–12.20	**N. in English**
02.15–02.30	**N. in English**	14.00–14.15	N. in Bengali
02.30–02.50	Rlg. Prgr.	14.45–15.00	N. in Urdu
07.00–08.00	Comm. Service	15.00–15.15	**N. in English**
08.00–08.10	N. in Bengali	15.15–15.45	Nat. Hookup

Zonal Services:

Lahore	kc	Dacca	kc	Dacca (to We. Pakistan)	kc
01.30–03.30	3915	01.00–03.00	5980	01.00–03.00	11630
06.30–08.30	7225	07.00–09.00	7250	07.00–09.00	17825
12.00–13.45	6065	11.00–13.00	7260	11.00–13.30	17640
14.00–17.30	3390	13.15–16.30	4937	13.45–16.30	9750

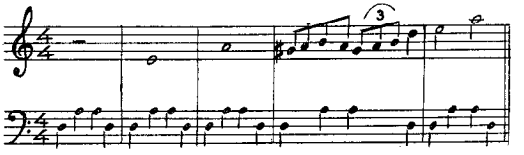
Peshawar: 01.30–03.30 on 4935kc, 07.00–08.30 on 7130kc, 12.00–12.45 on 6120kc, 13.00–17.30 on 4775kc – **Quetta:** 12.00–13.45 on 5970kc, 14.00–17.00 on 3915kc.

EXTERNAL SERVICES

Time	Service	kc	Language
00.30–01.15	So. Ea. Asia	15335, 11885	English
03.45–04.45	So. Ea. Africa	11885, 17745	Urdu, Gujrati
08.30–09.15	Indonesian*	17760, 15190	English
09.30–09.45	G.O.S. (Far East)	17760, 21590	English
09.45–10.30	Burmese	17760, 21590	Burmese
10.45–11.45	So. Asia*	17760, 11875	Urdu
13.35–13.50	G.O.S. (Mid. East)	15305, 21590	English
16.00–17.15	Afghan/Persian	7120, 6235	Afghan-Persian
16.00–16.45	Iranian	5975, 7285	Persian
17.30–18.30	Arabic	7300, 11845	Arabic
18.45–19.30	Turkish	7300, 9740	English
19.45–20.30	U.K.	9740, 11672	English

* to F. East. ** to M. East.

ANN: E: "This is R. Pakistan calling listeners in (name of target country)" – **INT-SIG:** A signal tune is played during interval signals – **V. by QSL-card – PUB:** "Pakistan Calling" in English, Urdu, Bengal, (fortnightly). Monthly Pub. in Arabic, Persian, Burmese.



PHILIPPINES

L.T: GMT+8 h – **Pr.L:** English, Tagalog, Ilocano, Visayan.

Radio Control Office, Dept. of Public Work and Communications, Manila.

STATIONS: Educ. and Go: 2), 5), 29). **Rlg:** 3), 7), 13 – Other st's priv. comm. 1) is Go. owned, but broadc. comm. prgr's.

Location: Manila exc. where indicated.

Call	kc	m	kW	Name & h of tr.
1) DUB4	*3286	91.29	2.5	Philippine Broadc. Sce.
2) DZCA	3305	90.77	1	Nat. Civil Defense Adm: 08.00–11.00
3) DZB2	3345	89.68	2	Far East Broadc. Co: 21.00–15.00
4) DXB3	3945	76.05	0.5	Notre Dame Broadc. Corp, Cotabato City: 22.00–14.00
5) DZB6	4945	60.67	0.5	Nat. Teachers College: W 09.30–11.00. Sun 01.00–03.00
2) DZCA	5970	50.25	1	Nat. Civil Defense Adm: 08.00–11.00
3) DZH6	6030	49.75	2	Far East Broadc. Co: 21.00–17.30
7) DYH4	6055	49.55	0.35	Silliman Univ. Dumaguete City: 23.00–06.00, 08.30–14.00(Sun 23.00–14.00)
6) DZI7	6080	49.34	0.25	Voice of Manila: 21.00–16.00
3) -	6120	49.02	50	Far East Broadc. Co: 22.00-23.30
1) DUH2	6170	48.62	10	Philipp. Broadc. Sce: 21.00–16.00
8) DUH9	7160	41.90	1	Univ. of the Philippines, Quezon City: 09.00–13.00
3) DZI9	7230	41.49	10/2	Far East Broadc. Co: 21.00–17.30, Sun 03.00–08.30
9) DXH2	7280	41.21	1	Mindanao Broadc. System, Davao City: 21.00–16.00
1)	*9515	31.53	10	Philipp. Broadc. Sce.
1) DUH4	*9615	31.20	10	Philipp. Broadc. Sce.
3) DZH7	9715	30.89	10/2	Far East Broadc. Co: 21.30–17.30, Sun 03.00–08.30
3) -	11740	25.55	2	Far East Broadc. Co: 00.00-05.30
1) DUH5	*11840	25.34	10	Philipp. Broadc. Sce.
3) DZH8	11850	25.32	50/4	Far East Broadc. Co: 08.30–17.30
3) DZF2	11920	25.17	4/50	Far East Broadc. Co: 22.00–17.30, Sun 03.00–08.30
3) -	15230	19.70	2	Far East Broadc. Co: 12.00-13.30
3) DZH9	15300	19.60	2/10	Far East Broadc. Co: 22.00–15.15, Sun 03.00–08.30
3) DZF3	15385	19.50	50/3	Far East Broadc. Co: 23.30–12.30 Sun 03.00–08.30
3) DZI6	17810	16.84	2	Far East Broadc. Co: 22.00–12.30, Sun 03.00–08.30

Medium Waves: ° Short Waves, [1] also FM.

Call	kc	kW	Call	kc	kW	Call	kc	kW
10) DZAA	540	0.5	19) DYQL	870	1	18) DZAL	1230	1
2) DZCA	°550	1	14) DXVM	870	1	32) DZLT	1240	5
11) DZCI	560	1	4) DXMS	°880	1	6g) DZHF	1250	1
12) DYCB	570	10	13) DZXX	890	1	33) DYVM	1260	0.5
13) DZBB	580	10	9) DXUM	900	1	25) DZBW	1270	0.5
14) DXDC	590	1	10) DZAD	900	0.5	18) DYRI	1280	5
6c) DYRC	°600	5	18) DYHF	910	1	15) DZBJ	1280	5
15) DZAX	600	0.5	29) DXMT	930	10	30) DZEB	1290	1
DXYZ	610	1	7) DYCR	°940	5	15) DZRL	1300	1
16) DZAQ	620	50	29) DZTD	940	5	18) DYML	1310	1
14) DXBC	630	1	19) DZXL	960	50	18) DYRK	1320	1
17) DXAW	640	10	6f) DYMB	970	1	30) DXJJ	1330	0.5
6a) DZRH	°650	10	26) DZRC	970	1	34) DZYG	1330	1
18) DYBC	660	1	30) DXJC	980	0.5	16) DZMM	1340	1
19) DYPL	670	1	12) DZYY	980	1	1) DXRP	1350	1
3) DZAS	°680	10	25) DXCE	980	0.5	35) DZSG	1350	1
20) DXSS	680	1	14) DZAH	990	0.5	35) DZYS	1350	1
16) DZXN	690	1	DYRP	990	1	36) DYRL	1360	1
21) DXLM	690	0.5	16) DZBC	°1000	5	35) DZXQ	1360	5
15) DZTG	690	1	17) DXJW	1010	1	30) DZBS	1370	1
22) DXLY	700	5	13) DYSS	1020	1	29) DZTM	1380	10
1) DZFM	°710	10	3) DZFE	°1030	1	37) DXRM	1390	1
14) DXIC	720	1	6h) DYMS	1040	0.5	19) DYXL	1400	5
23) DZGB	720	1	16) DZRI	1040	5	1) DYMR	1410	1
16) DZRD	730	1	25) DZGT	1050	0.5	8) DZUP	°1410[1]	1
4) DXND	730	0.5	16) DZRB	1060	5	31) DYRS	1420	1
24) DYBR	730	1	18) DYWX	1070	1	5) DZTC	1430	1
9) DXMC	°740	5	29) DZWS	1070	10	13) DYOO	1440	1
25) DZQR	740	0.5	30a)DYVA	1080	1	14) DXVM	1450	0.5
16) DYCU	750	10	9) DXCM	1090	1	38) DZBU	1460	10
26) DZCV	750	1	29) DZMT	1100	10	9) DXKM	1470	1
26) DXGS	750	1	30) DZVS	1110	0.5	9) DXMM	1470	0.5
6b) DZMB	°760	1	31) DYRM	1120	1	39) DZBD	1480	0.5
25) DZJC	770	1	26) DZXT	1120	1	40) DYKR	1480	1
27) DYRR	770	1	18) DYOR	1130	1	18) DZGK	1480	1
14) DXCC	780	1	14) DZHP	1130	10	15) DXOG	1490	1
28) DZAB	780	1	31) DYRD	1150	1	21) DZAF	1500	0.5
6e) DYVL	790	0.5	12) DZMY	1160	1	1) DZRP	1500	1
25) DZVV	790	1	18) DYLL	1170	1	1) DZEQ	1510	1
6d) DZPI	800	1	22)	1170	0.5	13) DYMR	1510	5
9) DXMM	810	1	17) DXWW	1180	1	13) DZEG	1510	1
6c) DYBU	°820	1	1) DZRM	1190[1]	5	22)	1560	5
19) DZQL	830	5	31) DYRH	1200	1	41) DZFU	1580	0.5
7) DYSR	°840	1	18) DYRM	1200	1	33) DYDR	1590	1
26) DZGE	850	5	18) DYOG	1210	1			
28a)DZST	860	1.0	1) DXSM	1220	1			

Nippon Electric Company Ltd, Japan: delivered to Philippine Broadc. Sce: 3 × 1kW, 1 × 5kW mw-tr's, 1 × 10kW sw-tr.

Short Waves:

1) 5th Floor, GSIS Bldg, Manila. **Cable:** Philcast. **Te:** 3-24-15. **FI:** By state and adv – **L.P:** Gen. Mgr: F. Trinidad. Exec. Asst, Dir. Foreign Rel: E. Madrid – **Home Sce.** on all mw-st's and 3 FM-st's: 21.00–15.00 – **N. in English:** 22.45, 00.00, 01.00, 02.00, 05.00, 06.00, 07.00 (Asian) 08.00, 09.00, 14.00 (Asian), **N. in Tagalog:** 21.30, 04.45. **Rel. st's:** DXRP Davao City. DZEQ Baguio, DYMR Cebu City, DXSM Jolo – **Ann:** "This is the PBS, Philipp Broadc. Sce" – **V.** by letter. Rp. appreciated – **F.PL:** Further 1kW relay st's.

2) Independence Grandstand, Luneta, Manila – **Ann:** "You are listening to st. DZCA owned and operated by the National Civil Defense Adm. of the Philippines" – **V.** by letter. **Re.** in E.

3) **FI:** FEBC is a non-profit, non-comm. missionary organization being sustained by free-will gifts and offerings from interested friends. **ADDR:** Box 2041, Manila. **Cable:** Febcom. **Te:** 2-1057 – **L.P:** Dir: R. A. Reynolds. Tec. Dir: N. Blake. Prog. Dir: R. Boettcher.

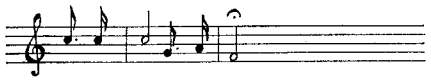
PHILIPPINE SCE: On 680/3345/6030kc: 20.55–15.00. 21.00–21.45 Philippine dialects, 21.45–22.30 **English,** 22.30–23.00 Tagalog, 23.00–02.15 **English,** 02.15–03.00 Tagalog, 03.00–04.30 **English,** 04.30–05.30 Chinese, 05.30–08.30 **English,** 08.30–11.00 Tagalog, 11.00–15.00 **English.**

Manila's Fine Music Station on 1030kc carries classical music and is joined by the following s.w. st's: 22.00–23.30 15300/17810kc, 03.00–04.00 9715/11920/15300/17810kc (Sun only), 09.00–10.30 15385/17810 kc, 10.30–12.30 7230/15385/17810kc. **N. in English:** 23.30, 01.30, 04.00, 11.00.

OVERSEAS SERVICE:

21.30–23.00 Mandarin 6120, 7230, 9715, 11920; 23.00–23.30 Amoy 7230, 9715, 11920; 22.00–23.30 **English** 15300, 17810; 23.30–23.45 **English** (N) 6030, 7230, 11850, 15385, 17810; 23.45–00.30 **English** 7230, 11850, 15385, 17810; 23.30–00.30 Indonesian, Thai, Lao 9715, 11740, 15300; 00.30–01.00 Sinhalese 15385, Burmese 11740, 15300, 17810; 01.00–02.30 Oriya, Gujarati, Nepali, Tibetan, Hindustani, Malayalam 15300; 01.00–02.00 **English** 15385, Mandarin 9715, 11740, 17810; 02.00–03.00 **English** 9715, 11740, 15385, 17810; 03.00–08.30(Sun only)

English 9715, 11740, 15385, 17810; 08.30–09.00 English 9715, 11850, 11920, 17810; 09.00–10.00 English 11850, 15385, 17810; 09.00–09.45 Amoy 7230, 9715, 11920, 15300; 10.00–10.30 Russian 11850; 09.45–10.30 Cantonese 7230, 9715, 11920, 15300; 10.00–10.30 English 15385, 17810; 10.30–11.45 Japanese 11850; 10.30–11.30 Indonesian 9715, 11920, 15300; 10.30–12.30 English 7230, 15385, 17810; 11.30–12.00 French 9715, 11920, 15300; 12.00–12.30 Thai 11920, Vietnamese 9715, 11850; 12.30–13.30 English 7230, 11850, 15230, 15385, Lao, French, Cambodian 9715, 11920; 13.30–16.30 English, Tamil, Telegu, Malayalam, Hindustani, Hindi & English 9715; 13.30–16.30 Mandarin, Cantonese, Russian 7230, 9730, 11920, 15300; 16.30–17.30 Russian 6030, 7230, 9730, 11850, 11920kc.
N. in English: 23.30, 01.30, 02.55(Sun), 04.00(Sun), 06.30(Sun), 09.00, 11.00, 15.30 – **N. in Indonesian:** 11.10 – **Shortwave Mbg:** Mo 09.15, Wed 13.30.
ANN: "This is the English Sce. of the FEBC transmitting from the Philippines" (quarterly). "This is the English Sce. of the FEBC operating in the (metre bands)" (halfhourly). "This is Manila calling. The English Sce. of the FEBC operating at (give freq's). The time is..." (hourly).
INT-SIG:



V. by QSL-card and letter. Rp. preferred (3IRCs for Air-mail) – **PUB:** Prgr.schedule free on request. "Signal" (every two months).
4) Cotabato City, Cotabato – 5) National Teachers College, P.O. Box 3032, Manila – **Ann:** E: "This is the Voice of Education". V. by letter.
6) **MANILA BROADCASTING COMPANY – Addr:** Radio Center 964, Taft Avenue, Manila. **Cable:** "Manbroadco". **Te:** 36451 – **L.P:** Gen. Mgr: Ira Davis. Dir. Tec: F. Dela Tuente – a) **The Voice of Philippines. D.Prgr:** 21.00–16.00 – b) **The Voice of Manila. D.Prgr:** 21.00–16.00 – c) **Cebu Broadcasting Company:** ("Voice of Cebu" & "Radio Cebu"). **Addr:** Lim Bon Fing Bldg, Cebu City. **D.Prgr:** 21.00 –16.00 – d) **Radio Philippines. D.Prgr:** 22.00–14.00 – e) **The Voice of Leyte. Addr:** Red Beach, Palo, Leyte. **D.Prgr:** 21.00–15.00 – f) **Metropolitan Broadc. Co.** g) **Your Business Station. D.Prgr:** 23.00–18.00 – h) **MBC, Leyte. D.Prgr:**21.00–15.00. V. all st's verify by QSL-card. Rp.
7) **Silliman University,** Dumaguete City. **Te:** 242 – **L.P:** Dir. Adm: H. W. Mack, Dir. Tec: B. Magdamo. Dir. Prgr: C. Beruadez – **D.Prgr.** in English, Visayan: **N. Wrp:** 22.00, 22.45(E), 04.00(E), 11.00, 12.00(E) **L.L:** (English): **D** 01.00.

Int-Sig: Sign on: Battle Hymn of the Republic – This is the Voice of Christian Brotherhood broadc. st's of the Philippine Federation of Christian Churches, broadc. in co-operation with Silliman University, Dumaguete City" – V. by QSL-card or letter – **F.PL:** 10kW (Manila). **FM – Pub:** Prgr. schedule (quarterly).
8) College of Speech and Drama, Univ. of the Philippines, Diliman, Quezon City – **L.P:** Dir. Gen: C. Fonacier. Mgr: Prof. M. Yogore. Dir. Tec: F. La Puebla – **"Views of the News":** Wed 11.30 – **Ann:** You are listening to DZUP, the R. st. of the State Univ. broadc. from Diliman, Quezon City, 1410kc on your radio dial, 7.16Mc in the sw-band" – **Int-Sig:** electric chimes E-C(mi-do) – V. by QSL-card or letter. Records accepted.
9) 3rd Floor, Development Bank of the Philippines, Claveria St, Davao City. **Te:** 252 – **L.P:** Dir. Gen: G. E. Torres – **D.Prgr: in English, Tagalog, Cebuano:** On 740/7280kc: 21.00–15.00. **N.** (English): 23.00, 05.00. On 900kc: 12.00–14.00. **N.** (English): 04.45, 11.15. On 810kc: 22.00–14.00 – **Ann:** "MBS-Mindanao Broadc. System, DXMC-Davao, DXUM-Davao-DX double M dial 810" – **Int-Sig:** DXMC: A gong (musical instrument used by Moros, natives of Mindanao) – V. by letter.

Medium Waves:
10) **Pacific Broadc. System, Inc.** Eden Hotel, Legaspi City. **D.Prgr:** 21.00–15.00 – 11) **R. Station DZCI,** Cabanatuan – 12) **Monserrat Broadc. System,** CBN Bldg, Aduana Str, Intramuros, Manila. **D.Prgr:** DZMY (Angono, Rizal) 21.00–17.00. DZYY-FM (Minala): 24 h.
13) **Republic Broadc. System,** E. de los Santos Ave. Diliman, Quezon City. **Cable:** "Bobstew". **Te:** 70-02-21 – **Home Sce. in English:** DZBB 21.00–16.00. DZXX 20.00–16.00. DYSS/DYOO 21.00–15.00. **Ann:** "This is R.B.S. the Republic Broadc. System... your station is DZBB (or DZXX) broadc. from Quezon City" – V. by letter. Re. in E.
14) **R. Mindanao:** Cagayan de Oro City. **D.Prgr:** 22.00–14.00 in English, Visayan on DXBC (Butuan City), DXIC (Iligan City), DXCC/DXVM (Cagayan de Oro City) – 15) **R. Philippines Network Inc.** Manila – 16) P.O. Box 1344 Manila. **Te:** 8-46-84.
Home Sce. in English & Tagalog: 21.00–16.00. **N. English:** D 23.00, 13.00(Mo-Fri), **Tagalog:** 22.55(Mo-Fri) on DZBC.
Ann: "This is ABS, largest Philippine Network" – V. by QSL-card. Re. in E – DZAQ/DZBC: Manila. DZRI: Dagupan; DZRB: Naga; DYCB: Cebu.
17) **Pioneer Station,** P.O. Box 121, Davao City – In **English, Visayan:** DXWW (Davao City): 22.00–15.00 – DXJW (Zamboanga City): 22.00–14.00 – DXAW (Davao City): 21.00–16.00.
18) **Visayan Broadc. System,** P.O. Box 41, Iloilo City – **D.Prgr:** DYBC (Cebu City): 21.00–16.00 – DYHF (Iloilo City): 21.00–15.00 – DYLL (Tacloban): 21.00–16.00 – DYRI (Iloilo City): 21.00–16.00 – DYWX (Bacolod City) / DYOR (Ormoc City) / DYRM (Dumaguete City) / DYOG (Calbayog City) / DZAL (Legaspi City) / DYML (Tagbilaran, Bohol), DYRX (Roxas City): 21.00–16.00.
19) **Chronicle Broadc. Net,** CBN Bldg. Aduana, Str. Manila. **Cable:** "CBN, Manila". **Te:** 30061 – **D.Prgr:** DYPL (Iloilo City) / DYQL (Bacolod City): 21.00–16.00 – DZXL (Angono, Rizal): 21.00–15.00 – DZQL (Angono, Rizal): 24 h – DYXL (Bacolod City): 21.00–16.00 – DYZL-FM (Manila): 21.00–15.00 – DXJW: 22.00–14.00.
20) **Surigao Broadc. Net,** Surigao – 21) **Armed Forces of the Philippines.**
22) **Manila Times Publishing Co,** Manila – 23) **R. Station DZGB,** Legaspi City – 24) **East Visayan Net,** Tacloban City – 25) **Liberty Broadc. Network,** Dagupan City – 26) **Filippines Broadc. Network,** P.O. Box 23, Naga City, Camarines Sur. **D.Prgr:** 23.00–14.00.
27) **R. St. DYRR,** Ormoc 28) **R.Station DZAB,**734 Laguna St. Manila.
28a) **Voice of the Catholic Philippines, Univ. of Santo Tomas, Manila.** (Reported also on sw).
29) **Associated Broadc. Corporation,** Florentino Torres Str. Manila. **Te:** 3-48-55 – **Home Sce. in English:** DZTM (Manila) 24 h – DZWS/DZTM (Manila) / DZTD (Dagupan) / DXMT (Davao City): 21.00–16.00 – **Ann:** "This is ABC, the Associated Broadc. Corporation – DZMT 1100kc, ect.." V. by letter. Re. in E.
30) **Oceanic Wireless Network, Inc.** Alliance Bldg. Rosario, Manila. **D.Prgr:** 22.00–16.00 on DXJC (Jolo, Sulo) – DZVS (Sogorson) – DZEB (Naga City) – DZRL (Laoag) – DXJJ (Zamboanga City) – DZBS (Baguio City) – DXOC (Ozamis City).
30a) **Agusan Broadc. Co.** Butuan City. **D.Prgr:** 21.00–16.00.
31) **Allied Broadc. Net,** Dumaguete City – 32) **Voice of Quezon,** Luzonian Colleges, Lucena City – **D.Prgr: in Tagalog, English:** 21.00–15.00 – V. by QSL-card or letter. Re. to Tec. Dir. Records accepted – **F.Pl:** DZBT 780kc 1kW (Batangas).
33) **Central Philippines Broadc. Co.** 148 Colon St. Cebu City.
34) **Vanguard Radio Net,** Cabanatuan – 35) **DZSG Sta. Catalina,** DZYS Santiago, Isabela. DZYQ Batangas – 36) **Bacolod Broadc. System,** Lacson Str. Bacolod City. V. by QSL-card or letter.
37) **Mindanao Broadc. Co.** Marawi City. 22.00–13.00.
38) **Manily Daily Bulletin,** Shurdut Bldg, Intramuros, Manila. **Te:** 4-54-31. **D.Prgr:** in Tagalog: 21.00–16.00, 22.00–13.00. V. by QSL-card – 39) **R. Station DZBD,** Manila. – 40) **R. St. DYKR.**

Listen to the ...

Far
East
Broadcasting
Company

Christianity to the World by Radio

For full details see page 164

41) **Feati University**, Feati U. Bldg. Sta. Cruz, Manila – **D.Prgr:** in English, Tagalog: 01.00–13.30.

VOICE OF AMERICA RADIO STATION

ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS:
Medium Wave: Malolos A: 920kc 326m 50kW: 11.00–16.30, 22.00–23.30 – **Poro A:** 1140kc 263m 1000kW: 11.30–16.30.
Short Wave: Malolos 7.5/50kW: 11.00–16.30, 22.00–23.30.

kc	m	kc	m	kc	m	kc	m
6185	48.50	9635	31.14	15155	19.80	15250	19.67
7135	42.05	9655	31.07	15210	19.72	17745	16.91
7175	41.81	11785	25.46				

Poro 35/100kW: 09.00–16.30, 22.00–02.00.

kc	m	kc	m	kc	m	kc	m
6045	49.63	9530	31.48	11770	25.49	15250	19.67
6065	49.46	9580	31.32	11895	25.22	15335	19.56
6125	49.98	9620	31.19	15155	19.80	15400	19.48
7175	41.81	9700	30.93	15185	19.76	17845	16.81
7225	41.52						

D.PRGR: Medium Wave 920kc: 11.00–16.30 **English,** 22.00–22.30 **English,** 22.30–23.00 Mandarin, 23.00–23.30 **English.**
Medium Wave 1140kc:
11.30–12.00 Mandarin 13.30–14.00 Cambod. 15.30–16.00 Vietnam
12.00–12.30 Mandarin 14.00–14.30 Thai 16.00–16.30 English
12.30–13.00 Vietnam 14.30–15.00 Mandarin
13.00–13.30 Lao 15.00–15.30 Mandarin **Short Wave:** See USA.
Continental Electronics, USA: 1000 kW mw-tr.

RYUKYU ISLANDS

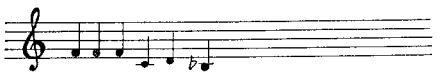
L.T: GMT+9 h – **Pr.L:** Japanese, Okinawan, English.

RYUKYUS BROADCASTING CORPORATION (Comm.)

ADDR: CPO Box 4, Naha, Okinawa. **Te:** 8-4161 – **L.P:** Pres: S. Zayasu. Dir. Tec: T. Washimine. Dir. Prgr: K. Kabira. Mgr. KSBK: Y. Nakamura.
STATIONS: KSAR 740kc 5kW: 20.00–16.00 Japanese.
KSBK 880kc 3kW: 20.00–15.00 English.
Nippon Electric Co. Ltd, Japan, delivered 5kW mw-tr.
N. in English: Every h on the h.
ANN: KSAR: "RBC" or "Ryukyu hoso des" every 15 or 30 min's. KSBK: "Radio 880" – **V.** by QSL-card.

FAR EAST BROADCASTING CO. (Non-Comm, missionary)

FI: By freewill gifts – **ADDR:** CPO Box 55, Naha. **Cable:** Febcomb. **Te:** 78208 – **L.P:** Dir: J. C. Lentz. Dir. Tec: D. Hudson. Dir. Prgr: J. Dresbach (KSAB), (KSPX), Matsukawa (KSBU).
STATIONS:
KSAB 1020kc 1kW – KSBU 1360kc 100kW – KSDX 1250kc 1kW
HOME SCE:
KSAB: English: W 20.30–14.00, Sun 22.30–14.00. **N, Wrp:** 20.30, 21.55, 22.55, 23.55, 00.55, 02.45, 03.55, 04.55, 08.45, 11.45. Sun: 22.30, 03.01, 08.45, 11.45 – **KSDX: Japanese:** D 22.00–17.00. N: 22.30, 23.30, 02.30, 03.30, 09.30, 12.30, 14.10 – **KSBU: Chinese** (beamed towards Shanghai): D 12.00–15.00.
ANN: Call letters every 15 or 30 min.
INT-SIG: Vibraphone – **V.** by QSL-card. Rp. preferred.



F.PL: sw-st. in the 80m.b. FM – **PUB:** Prgr.schedule free.

RADIO OKINAWA CO. LTD. (Comm.)

ADDR: CPO Box 405, Naha, Okinawa. **Te:** 8-5128.
STATION: KSDT 780kc 5kW – **HOME SC:** 20.00–15.00 in Japanese.
Nippon Electric Co., Japan: 5 kW mw-tr.
ANN: "KSDT, ROK" or "R. Okinawa des" at 15 or 30 min. intervals.
INT-SIG: Chimes or audio tones – **V.** by QSL-card.

VOICE OF AMERICA RADIO STATION IN OKINAWA

ADDR: Voice of America, Washington 25, D.C, USA.
STATIONS:
Medium Wave: Okinawa-A 1178kc 255m 1000kW: 11.00–16.30.
Short Wave: Okinawa 35/100kW: 09.00–16.30, 20.00–01.30.

kc	m	kc	m	kc	m	kc	m
3940	76.15	6075	49.38	7155	41.92	11960	25.08
5975	50.21	6145	48.82	7235	41.47	15210	19.72
6010	49.92	6170	48.62				

D.PRGR: Medium Wave:
11.00–11.30 **English** 12.30–13.00 Russian 14.30–15.00 Mandarin
11.30–12.00 Korean 13.00–13.30 Korean 15.00–15.30 Russian
12.00–12.30 Mandarin 13.30–14.00 Mandarin 15.30–16.00 Mandarin
14.00–14.30 **English** 16.00–16.30 **English**
Short Wave: See USA.

SARAWAK (Federation of Malaysia)

L.T: GMT+8 h – **Pr.L:** English, Malay, Chinese, Dayak, Melanao.

SARAWAK BROADCASTING (Go.)

ADDR: R. Sarawak, Broadc. House, Kuching. **Cable:** Broadcast. **Te:** 2345 – **L.P:** Dir. Broadc: P. Ratcliffe, OBE. Dir. Tec: J. R.Sandison.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
730	410.9	20/10	4835	62.05	5	7160	41.90	7.5
850	352.9	5	4950	60.60	5/7.5	7270	41.27	5

The Marconi Company Ltd, G.B, delivered 1 × 7.5kW tr, 5 × 10kW tr's.
HOME SCE:
Morning Sce: On 730/4950/7160kc: 22.55–00.15 **D** in English – **Midday Sce:** 04.00–05.00 (D exc. Fri) on 850/7160kc in Malay, Melanau, Dayak. 04.00–05.30 (Fri) on 850/7160kc in Malay. 04.00–05.00 (Fri, Sat 05.30) in Chinese, English. 04.00–05.30 (Wed) on 7270kc in **English.** 05.00–06.30 (Sat, Sun) on 730/7160/7270kc in **English – Malay/Dayak Sce:** 08.30–14.00 on 850/4835kc. **Malay:** 08.30–10.00, 12.30–14.00. **Dayak:** 10.00–12.30 – **English/Chinese Sce:** 08.30–14.30 on 730/4950kc, 14.30–15.00 (Sat only) on 730/4835/4950kc. **English:** 10.30–12.00, 13.00–14.30 (Sat 15.00). **Chinese:** 08.30–10.30, 12.00–13.00. **N: English:** 23.00 (BBC), 05.00 (ABC), 11.00, 13.00 (BBC). **Malay:** 12.30 (Mo, Thurs), 12.45 (BBC), 12.50 (W). **Chinese:** 10.15 (W), 12.00 (BBC). **Dayak:** 11.30.
ANN: E: "This is Radio Sarawak". Malay: "Ini-lah R. Sarawak". Dayak: "Tu R. Sarawad" – **INT-SIG:** A musical phrase played on a native instrument, the Sapé, a musical phrase alternating between A and F – A 1000 c/s tone is radiated for 4 min's commencing 5 min's before each tr. **V.** by QSL-card – **PUB:** "R. Times" (fortnightly).

SAUDI ARABIA

L.T: GMT+3 h – **Pr.L:** Arabic.

SAUDI ARABIA BROADCASTING (Go.)

ADDR: Ministry of Information, Jeddah. **Cable:** Information Ministry – **L.P:** Minister of Inf: H. E. Sheikh Jamil Hujeilan. Dir. of Press: G. Abou Al-Faraq. Dir. Prgr: A. Gazawi. Dir. Tec: A. Andreou.
STATIONS:

kc	m	kW		kc	m	kW
Riyadh	647	463.6	1	Riyadh	9670	31.02	50
Jeddah	723	414.4	50	Jeddah	11950	25.10	10
Riyadh	7220	41.55	50				

Telefunken AG, Germany: delivered 2 × 50kW sw-tr's (Jeddah, Riyadh).
AKG, Austria: delivered studio equip. (recorders, microphones).
HOME SCE. in Arabic: Approx. 04.00–06.15, 11.00–12.45, 17.00–17.35, 18.00–21.00 (h of tr. depends on sunrise and sunset).
FOREIGN SERVICE on 723/11950kc: Indonesian: 13.00–14.00 (N. 13.45) – **Urdu:** 14.00–15.00 (N. 14.15).
ANN: Home Sce: "El Izaa el Arabia el Seoudia". Foreign Sce: "Disini Saudi Arabia" (Indonesian). "Mecca Mukarama Ka Awas Saudi Arab Radio" (Urdu) – **INT-SIG:** Call to prayer (az'an) played on flute. **V.** by letter. Records accepted – **F.PL: Jeddah:** one 100kW and two 50kW sw-tr's at July 1964. **Riyadh:** one 50kW mw-tr. within 2 years, two 50kW sw-tr. within 1 year.

SINGAPORE (Fed. of Malaysia)

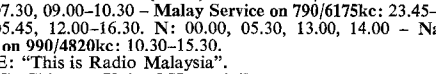
LT.: GMT+7½ h – **Pr.L:** Malay, Chinese, Tamil, English.

RADIO SINGAPORE (Go.)

ADDff: Broadcasting Division, Ministry of Culture, P.O. Box 1902, Singapore. **Cable:** Broadcast. **Te:** 52201 – **L.P:** Head of Broadc. Div: J. H. Duclos. Dir. Tec: G. Ang. Contr. Prgr's: C. V. Doral.
STATIONS:

kc	m	kW	Prgr	kc	m	kW	Prgr
630	476.2	10	E	6175	48.58	22.5	M/T
680	441.2	10	C	7170	41.84	22.5	C
790	379.5	10	M/T	7250	41.38	15	E
990	303.0	20	NS	9590	31.28		E
4820	62.24	22.5	NS	11940	25.13		E

E=English Sce; C=Chinese Sce; M/T=Malay/Tamil Sce; NS=National Sce.
The Marconi Company Ltd, GB: 2 × 10 kW mw-tr's.
English Service on 630, 7250kc: Mo–Fri: 22.30–01.30, 03.30–07.30, 09.30–16.30. Sat: 22.30–01.30, 03.30–16.30. Sun: 22.30–16.30.
N: 23.30, 00.30, 06.00, 11.30, 14.00 – **Chinese Service on 680/7170kc: D** 22.30–16.30 – **Indian (Tamil) Sce. on 790/6175kc:** 22.30–23.45, 05.45–07.30, 09.00–10.30 – **Malay Service on 790/6175kc:** 23.45–01.30, 04.30–05.45, 12.00–16.30. **N:** 00.00, 05.30, 13.00, 14.00 – **National Service on 990/4820kc:** 10.30–15.30.
ANN: E: "This is Radio Malaysia".
INT-SIG: Chimes – **V.** by QSL-card. Rp.



FORCES BROADCASTING SERVICE (British Mil.)

ADDR: Forces BC Unit, GHQ FARELF, c/o GPO Singapore. **Te:** 2801 – **L.P:** St. Comm: W. J. O. Ettridge.

STATION: 5010kc 59.88m 10kW: 10.45–13.45.
B.B.C. Prgr: 10.45–12.00 – Gurkha Prgr: 12.00–13.45 – ANN: "This is the Forces Broadc. Sce. Singapore" – V. by QSL-card. Rp.
F.PL: B.B.C. Prgr: 09.00–12.30, Gurkha Prgr: 12.30–14.00.
The Marconi Company Ltd. G.B, delivered: 10kW tr.

BBC FAR EASTERN STATION

ADDR: Caldecott Hill Studios, P.O. Box 434, Singapore. Cable: Febrocast. Te: 86321 – L.P: Head of Sce: G. A. Tree.

kc	m	kc	m	kc	m	kc	m
6110	49.10	9725	30.85	15310	19.60	21485	13.96
6175	48.58	11725	25.59	15360	19.53	21610	13.88
7110	42.19	11750	25.53	15420	19.46	21640	13.86
7120	42.13	11820	25.38	15435	19.44	21650	13.86
7135	42.05	11880	25.25	17755	16.90	21655	13.86
7260	41.32	11920	25.17	17790	16.86	21720	13.81
9560	31.38	11930	25.15	17870	16.79	21740	13.80
9580	31.32	11955	25.09	17880	16.78	25650	11.70
9690	30.96	15260	19.66	17890	16.77	25850	11.61

Relays of G.O.S.	h of tr.	m.b. All the year round
No. E. China, Hong Kong, Japan:	09.15–11.30	25, 19, 16
	11.30–13.15	19
	09.15–11.30	25, 19, 16
	11.30–13.15	19
So. China, Vietnam, Laos, Cambodia:	13.00–13.45	25, 19, 16
	14.00–14.45	31
	14.15–16.50	25
Indonesia:	09.15–10.30	41, 31, 25
	11.00–11.30	41, 31, 25
Burma, Thailand:	09.15–11.30	25, 16
	13.00–14.00	25, 19, 16
	14.15–16.50*	31, 25
India, Pakistan, Ceylon:	13.00–16.50*	19
	16.15–16.50	25
Australia, New Zealand:	09.15–10.30	31, 25
	11.00–11.30	31, 25
Australia:	13.00–13.15	25

* Oct-March closes 16.35 Mo-Fri, 17.20 Sat.

Relays of Asian Service:	Language	H of tr.	m.b.
Japan:	Japanese	11.00–11.30	25
China, Vietnam	Kuoyo	12.00–12.30	25, 19, 16, 13
Laos, Cambodia:	Cantonese	12.30–12.45	25, 19, 16, 13
Vietnam, Laos, Cambodia:	Vietnamese	11.30–12.00	31, 25, 19
Thai		13.15–13.45	19, 25
Indonesia:	Indonesian	10.30–11.00	41, 31, 25
Burma, Thailand:	Burmese	13.45–14.15	25, 19
India, Pakistan, Ceylon:	So. Asian Reg.*	15.45–16.15	25
	Urdu	14.15–15.00	25
	Hindi	15.00–15.45	25

* Sinhalese Tues, Fri, Tamil Sun, Thurs, Bengali Mo, Wed, Sat.

SYRIAN ARAB REP.

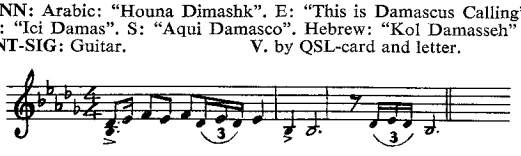
L.T: GMT÷2 h – Pr.L: French, Arabic.

SYRIAN BROADCASTING and TELEVISION (Go.)

ADDR: Rue de la Victoire, Damascus.
L.P: Dir. Gen: Y. El-Shahabi.
STATIONS:

kc	m	kW	kc	m	kW	kc	m	kW
566	530	300	953	315	30	11750	25.53	0.3
665	451	50	5287	56.75	0.3	11915	25.17	50
719	417	2	6165	48.66	50	15165	19.78	50
746	402	20	7390	40.60	7.5	17865	16.80	20
785	381	30	9555	31.40	20			
863	348	10	10988	27.30	0.3			

Telefunken AG, Germany: 50kW mw-tr (Damascus).
HOME SCE: Arabic: 04.00–07.00, 10.00–24.00 on 566/665/746/785 953/5287/10988/11750kc, 07.00–09.00 on 863/719/5287/10988/11750kc. English & French: 04.00–07.00, 16.00–19.00 on 863/719/7390kc – Turkish: 15.00–16.00 on 7390kc – Hebrew: 14.00–15.00 on 9555kc.
FOREIGN SCE: French & English (to Europe) 16.00–18.00 on 15165kc – Arabic (to No. Africa) 22.00–23.00 on 665/6165/9555kc – Spanish & Arabic (to So. America) 23.30–01.00 on 11915/15165/17865kc.
ANN: Arabic: "Houna Dimashk". E: "This is Damascus Calling". F: "Ici Damas". S: "Aqui Damasco". Hebrew: "Kol Damasseh" – INT-SIG: Guitar. V. by QSL-card and letter.



THAILAND

L.T: GMT+7 h – Pr.L: Thai.

THE THAI NATIONAL BROADCASTING STATION (Go.)

ADDR: Public Rel. Dept, Bangkok – L.P: Dir. Gen: S. Jarusrem. Dep. Dir. Gen: N. W. Siwasariyanon. Mgr: V. Amphaivorn. Dir. Tec: A. Pochanabhisut. For. Rel. Mgr: N. C. Rangsikue.
STATIONS: Call: HSK 830, HSK4 4830, HSK5 6070, HSK9 11910kc.

kc	m	kW	kc	m	kW	kc	m	kW
810	370.4		4830	62.10	5	7305	41.07	1
830	361.0	10	6070	49.42	1	11910	25.18	50
856	350.4	10	6097	49.20				
927	323.5		6160	48.70				

HOME SCE. in Thai: 00.00–01.00, 12.00–15.30 on 830, 927, 4830, 6070, 7305, 11910kc. N: 13.30 – Other languages: Chinese: 02.30–02.45 on 856, 6097kc. French: (Mo-Fri): 05.30–06.00 on 810, 830, 11910kc. Laotian: 01.05–04.10 on 810, 830, 4830kc; 13.00–13.30 on 856, 6097kc. Malay: 06.30–06.45 on 856, 4830kc.
OVERSEAS SCE: To No. America: 04.15–05.15 on 6160, 7305, 11910kc. 17.00–18.00 on 11910kc N. in English 04.25–17.15 To Thai Forces in Korea, Vietnam, Cambodia: 09.30–10.20 on 11910kc. N. Thai 09.32, Vietnamese 09.45, Cambodian 10.00 – General Overseas Sce: 10.25–11.57 on 6160, 7305, 11910kc. N. English 10.30, Malay 11.30, Chinese (Kuoyu)11.45. Rel. Home Sce. 13.00–14.00 on 11910kc. N. Thai.
ANN: E: "This is the Overseas Broadc. St. of Thailand". F: "Ici Radio Bangkok". Thai: "Thini Stani Vitayu Krajai Sieng hang Pra Thes Thai" – INT-SIG: V. by letter. Re. to Overseas Broadc. Division, Public Relations Dept, Bangkok.

MINISTRY OF EDUCATION (Go.)

ADDR: Division of Educ. Inf, Ministry of Education, Bangkok. Te: 46139 – L.P: Dir. Div. of Educ. Inf: A. Meesok. Dir. Tec: P. Pokawat (Ag).
STATIONS:
1180kc 254.2m 2kW – 3202kc 93.69m 2kW – 6062kc 49.48m 2kW.
HOME SCE. in Thai, English: Mo-Fri 02.00–07.00 School prgr's (in term time) W 11.00–13.00, Sun 09.00–13.00. General Prgr's (in Thai and occ. English). N: 11.35, 12.55.
ANN: E: "This is the Educ. Broadc. St. of Thailand, broadc. on a frequency of..." – F.PL: 10kW (1965) – PUB: "R. Times (in Thai).

THAI TELEVISION CO. LTD. (Comm.)

ADDR: Mansion B. Rajadamnern Ave, Bangkok. Cable: "Thaitevi". Te: 27952 – L.P: Man. Dir: N. P. Hongsanan.
STATIONS:
1500 kc 200.0 m 10 kW: 23.00–16.00 1st prgr.
1146 – 262.0 – 1 – : 10.00–15.00 2' prgr. (music).
FM: 96.5Mc: 04.00–07.00, 10.00–16.00. 3' prgr.
ANN: E: "This is Thai TV-Radio, the broadc. st. of the Thai Television Company".

OTHER STATIONS

All st's located in Bangkok exc. where indicated. *=Local Sub-St.
Short Waves:

	kc	m	kW	Name & h of tr.
1)	4755	63.09	0.5	Post & Telegraph R. St: 09.00–14.00
2)	4783*	62.72	0.5	Thai Army R: 22.30–01.30, 03.00–08.00, 11.00–15.30
3)	4810	62.37		Agricultural R. St: Mo-Fri 04.30–07.00, D 09.00–15.00
2)	5030*	59.64	0.5	Thai Army R: as 4783kc
1)	5955	50.38	0.5	Post & Telegraph R. St: 09.00–14.00
4)	6040	49.67	1	Thon Buri Municipal R. St; Thonburi: 23.30–02.00, 04.00–08.00 (Fri/Sat/Sun also 10.00–16.30)
5)	6100	49.18	0.25	The Navy R. St: 22.30–01.30, 04.00–07.00
3)	6105	49.14		Agricultural R. St: as 4810kc
6)	6315	47.48	2	2–0 R. St: 23.00–07.00, 10.00–17.00
7)	6405	46.84	1	The Royal R. St: 04.00–07.00 (Sun 03.00–08.00), 09.00–13.00
1)	7135	42.05	0.5	Post & Telegraph R. St: 09.00–14.00
8)	7150	41.90	0.25	Broadc. St. RTAF Donmuang AFB: 23.00–04.00, 05.00–06.30, 10.00–16.30
2)	7250*	41.38	0.5	Thai Army R: as 4783kc

Medium Waves:

kc	kW	kc	kW	kc	kW	kc	kW	kc	kW
2) 570	1	3) 674		13) 895	0.25	14) 1110	15	15) 1286	1
9) 625	10	11) 705	1	4) 910	1	5) 1120	1	7) 1333	0.5
10) 650	10	9) 775	20	1) 1010	0.5	13) 1160	5	16) 1355	2/10
2) 650	1	12) 785	0.5	2) 1043*1		8) 1200	5	10) 1400	1
FM: 16) 98.0Mc.								6) 1520	10

Short Waves:
1) Wat Liab, Bangkok. – 2) Bangkok – Local Sub-St's: 22.30–01.30, 03.00–08.00, 11.00–15.30 – 3) Soi Arie, Pahdyothin Highway, Bangkok. Ann: "Thini Vitayu Karn Kraset – Por Jor-Sor-Pad". V. by letter – 4) Span Puth(The Memorial Bridge), Thonburi. Ann: "Thini Por-Joor-Sor-Jed, Thessabal Nakorn Krung Thep Thonburi". V. by letter

– 5) Thachang Vang Loaunk, Rajvoradidth, Bangkok. **Ann:** "Thi nee Sor Tho Ror". **F.Pl:** Two 20kW tr's – 6) Royal Thai Army, Mig sa Wan Palace, Rajdamnern Norg Ave, Bangkok. **D.Prgr:** in Thai & English. **English:** 15.00– 16.00. **Ann:** Thai: "Thee nee Song Sune Stanee Vitayn Pleng Lae Kow". **E:** "This is Experimental 2–0 Radio Station of the music and news" – 7) Dusit Palace, Bangkok. **Ann:** "Thini Or-Sor. Praraj chavang Dusit" – 8) Donmuang AFB, Bangkok. **Te:** 70010. **L.P:** Dir: Lt. Col. V. Kanjanabha. Dir. Tec: Maj. C. Manisiri. **D.Prgr: N:** 01.30, 02.00, 03.30, 04.00, 11.45, 14.15. **"With a Song in your Heart":** 23.00–24.00. **"Thai Songs":** 14.30–16.30. **Ann:** "Thini Stani Vitayu Sun Nuang, Kong Bin Yuthakarn, Kongthup Agard, Donmuang". **V.** by letter and QSL-card. **Pub:** Prgr. schedule on request.

Medium Waves:

9) **Military Cannon Centre Dept,** Sune klang Thabarn Pean Yai, Lopburi. **D.Prgr:** 23.00–17.00 in Thai. **Ann:** "Thini Vitayu Sune klang Thaharn Pean yai". **F.Pl:** 50kW – 10) **R. Station HS1JS,** Krom Karn Tahan Siera Sarn Spandang, Bang-Sue, Bangkok. **D.Prgr:** HS1JS 650kc: 23.00–07.00, 08.00–16.00. HS4JS 1400kc: 23.00–02.00, 04.00–06.00, 10.00–15.00. **Ann:** "Thi Nee Sta nee Vitayll Jor Sor" – 11) **Krom Karn Phalang Ngan Taharn,** Raj The Vei, Bangkok. **D.Prgr:** 09.00–15.00 in Thai. **Ann:** "Thenee Por Ngor Thor, Krom Karn Phalang Ngan Taharn" – 12) **Armed Forces Radio Station,** Kieg Kaiy, Bangkabeam Bangkok. **D.Prgr:** 23.00–02.00, 05.00–07.00, 09.00–16.00 in Thai & English. **Ann: E:** "This is the Armed Forces Radio Station, broadcasting on the frequency of... kc". Thai :"Thini Yan Kroa". **V.** by letter – 13) **The Police Radio Station,** Pitak Santiradth, Parus Palace, Bangkok. **D.Prgr:** 04.00–07.00 special Prgr. in Thai on 895kc. 1160kc: 23.00–03.00, 04.00–07.00, 09.45–17.00 in Thai – 14) **Military Police Radio Station,** Police Military Province I Dept, Rajdamnern Norg, Bangkok. **D.Prgr:** 23.00–02.00, 04.00–07.00, 10.00–16.00. **Ann:** "Thini Suan Mig Savan Vitayu Khong Kong pan Savatr Monthon Thee Nioung". **V.** by letter. **Pub:** Prgr. schedule (monthly) in Thai – 15) **The Air Force Radio Station,** Tung Mahamek, Bangkok. **D.Prgr:** 1286kc: 22.30–02.00, 04.00–06.45, 09.30–16.00 in Thai. **German Lesson:** Sun 00.15–00.30. 1320kc: 23.00–01.00, 10.00–14.00, 15.00–18.00 in Thai – 16) **Kong Buncha Kong Phol Thee I,** Sri Ayudhya Road, Bangkok. **D.Prgr:** 23.00–07.00, 08.00–17.00. **Ann:** "Thee nee Kong Buncha Karn Kong Pol Thee I".

Nippon Electric Co. Japan: Mw-tr 1kW to Army.

TIMOR (Portuguese)

L.T: GMT+8 h – **Pr.L:** Portuguese.

RADIO DILI (Go.)

ADDR: Dili. **Te:** 295 – **L.P:** Dir. Gen: D. S. M. de Carvalho Braga. St. Mgr: J. J. das Neves. Dir. Tec: R. S. Trindade.

STATION: 3268kc 91.78m 1kW.

HOME SCE. in Portuguese: 10.00–14.00 – **N:** 10.05, 11.30 (Emis. Nac. Lisbon) – **ANN:** "Aqui Emissora de Radiodifusão de Timor, funcionando na banda dos 90 metros, frequencia de 3268kc" – **V.** by QSL-card. Records accepted.

TURKEY

L.T: GMT+2 h – **Pr.L:** Turkish.

RADIO ANKARA (Go.)

ADDR: Office: Ministry of Tourism and Information, Ankara. **Cable:** Tourism. **L.P:** Dir. Broadc. Dept: R. A. Sevengil. Dir. Tec. Dept: H. Kamoy. Chief Tech. Counsellor: M. Eke. Dir. Central Prgr. Office: M. T. Öngören. Dir. R. Ankara: O. Y. Hicyilmaz. Dir. R. Istanbul: S. Akgöl. Dir. R. Izmir: C. Ozankan.

STATIONS:

	kc	m	kW		kc	m	kW
Ankara	182	1648	240	**Reg. Stations:**			
Istanbul	701	428.0	150	Istanbul	963	311.6	2
Van	6025	49.79	0.3	Izmir	1033	290.4	2
Izmir	6085	49.30	0.5	Ankara	1063	282.2	2
Erzurum	7650	39.21	1	Adana	1133	264.8	2
Diyarbakir	9760	30.74	0.3	Kars	1165	258.0	2
Iskenderun	9770	30.70	0.3	Ganziantep	1242	242.0	2
				Antalya	1295	231.7	2

The Marconi Company Ltd, G.B, delivered 2 × 120kW lw-tr's (Ankara).

HOME SCE:

Ankara: Mo-Fri 04.27–08.00, 09.57–13.00, 14.57–22.00. Sat 04.27–08.00, 09.57–22.00. Sun 04.57–22.00. **N:** 06.00, 11.00, 17.00, 20.45.

Istanbul: Mo-Fri 05.30–08.00, 10.00–13.00, 15.00–22.00. Sat 05.30–08.00, 10.00–22.00. Sun 05.30–22.00. **N:** 06.00, 11.20, 18.00, 21.00.

Van: D 05.57–07.00, 12.57–16.30.

Izmir: W 05.28–07.00, 10.28–13.00, 14.58–21.30. Sun 06.58–13.00, 14.58–21.30. **N:** 11.30, 18.00, 20.45.

Erzurum: W 04.58–06.30, 09.58–11.30, 15.58–20.00. Sun 04.58–08.00, 09.58–12.00, 15.58–22.00. **N:** 06.00, 11.00, 18.00.

Diyarbakir: D 09.57–11.00, 16.57–19.00.

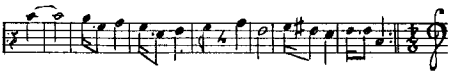
Iskenderun: D 09.57–11.00, 16.57–19.00.

Reg. st's:

Istanbul: 15.58–22.00 – **Izmir:** as 6085kc – **Ankara:** 15.00–21.00 – **Adana:** W 05.27–07.00, 10.27–12.00, 15.57–20.00. Sun 05.27–08.30, 09.57–12.00, 15.57–20.00 – **Kars:** 05.27–07.00(Sun 08.00), 09.58–11.30, 15.58–20.00 – **Ganziantep:** W 05.27–07.00, 10.27–12.00, 15.27–20.00. Sun 06.27–09.00, 10.27–12.00, 17.57–22.00 – **Antalya:** 05.28–07.00(Sun 08.00), 10.28–12.00, 16.58–21.00.

ANN: "Burasi Ankara" (This is Ankara) or "Burasi Istanbul Radyosu" (This is Radio Istanbul).

INT-SIG: R. Ankara and R. Istanbul:



FOREIGN SERVICE

STATIONS: [1] to Eu. [2] to Balkan, N. East. [3] to India.

Call	kc	m	kW		Call	kc	m	kW
TAS	7285[1]	41.18	100	–	TAU	15160[1]	19.79	100
TAT	9515[2]	31.53	20	–	TAQ	15195[2]	19.74	20
TAP	9745[2]	30.78	20	–	TAV	17820[3]	16.83	100

Nov/Feb. March/April

Arabic	kc	kc	Persian	kc	kc
15.30–16.00	9745	15195	13.30–13.45	9515	17820
17.30–18.30	9745	15195	15.00–15.30	9515	17820
Bulgarian			**Polish**		
17.00–17.15	9745	15195	17.45–18.00	7285	15160
English			**Rumanian**		
13.45–14.15	9515	17820	16.45–17.00	9745	15195
22.00–23.00	7285	15160	**Serbo-Croat**		
French			17.15–17.30	9745	15195
19.30–20.00	7285	15160	**Turkish**		
German			03.30–07.00	9745	15195
18.00–18.30	7285	15160	11.00–12.45*	7285/	15160/
Greek				9745	15195
16.30–16.45	9745	15195	17.00–17.30	7285	15160
Hungarian			18.45–19.45	7285/	7285/
17.30–17.45	7285	15160		9515	17820
Italian			**Urdu**		
20.30–21.00	7285	15160	14.15–14.45	9515	17820

* to So. & So. Ea. Asia – **N.** at the beginning of every transmission.

ANN: E: "This is R. Ankara". F: "Ici postes émetteurs de Turquie, R. Ankara a ondes Courtes émettant sur une longueur d'onde de...". G: "Hier ist der Türkische Landessender Ankara, auf Kurzwelle...". I: "Qui R. Ankara, Stazione ad onde corte, de...". Turkish: "Burasi Türkiyeradyo yayin postalari, kisa dalga Ankara Radyosu".

INT-SIG: As for Home Sce – **V.** by QSL-card – **F.PL:** Erzurum 245kc, Izmir 971kc 100kW (1964), Diyarbakir 209kc 250kW (1965) – **PUB:** Prgr. schedule (weekly) for R. Ankara, R. Istanbul, R. Izmir, R. Antalya, R. Adana, R. Ganziantep.

TECHNICAL UNIVERSITY OF ISTANBUL (Go.)

ADDR: Teknik Üniversite, Elektrik Fakültesi, Yüksek Frekans Tekniği Kürsüsü, Istanbul. **Te:** 482250.

HOME SERVICE: I.T.U. = Istanbul Teknik Üniversitesi.

6299 kc 47.62 m 1 kW: 18.15–20.00 (exc. Sat).

7018 – 42.74 – 0.5 – : 18.15–20.00 (exc. Sat).

FM: 99.5Mc 0.25kW: 18.15–20.00 (exc. Sat).

Frequencies are shifted slightly if interference occurs.

D.PRGR: National (Turkish) and **Classical music:** Sun, Tues, Thurs 18.15–18.45.

ANN: Turkish: "Burasi Istanbul Teknik Üniversitesi Radyosu". E: "Here is the R. Station of the Technical University of Istanbul" – **INT-SIG:** "Turkish March" by Mozart – **V.** by letter. Rp.

ARMED FORCES RADIO & TV SCE: see USA.

VIETNAM (Democratic Republic)

L.T: GMT+7 h – **Pr.L:** Vietnamese.

THE VOICE OF VIETNAM (Go.)

ADDR: No. 58, Quan-Su Street, Hanoi. **Te:** 4134 – **L.P:** Dir. Gen: T. Lâm. Dir. Foreign Prgr's: L. Quy.

STATIONS: Hanoi.

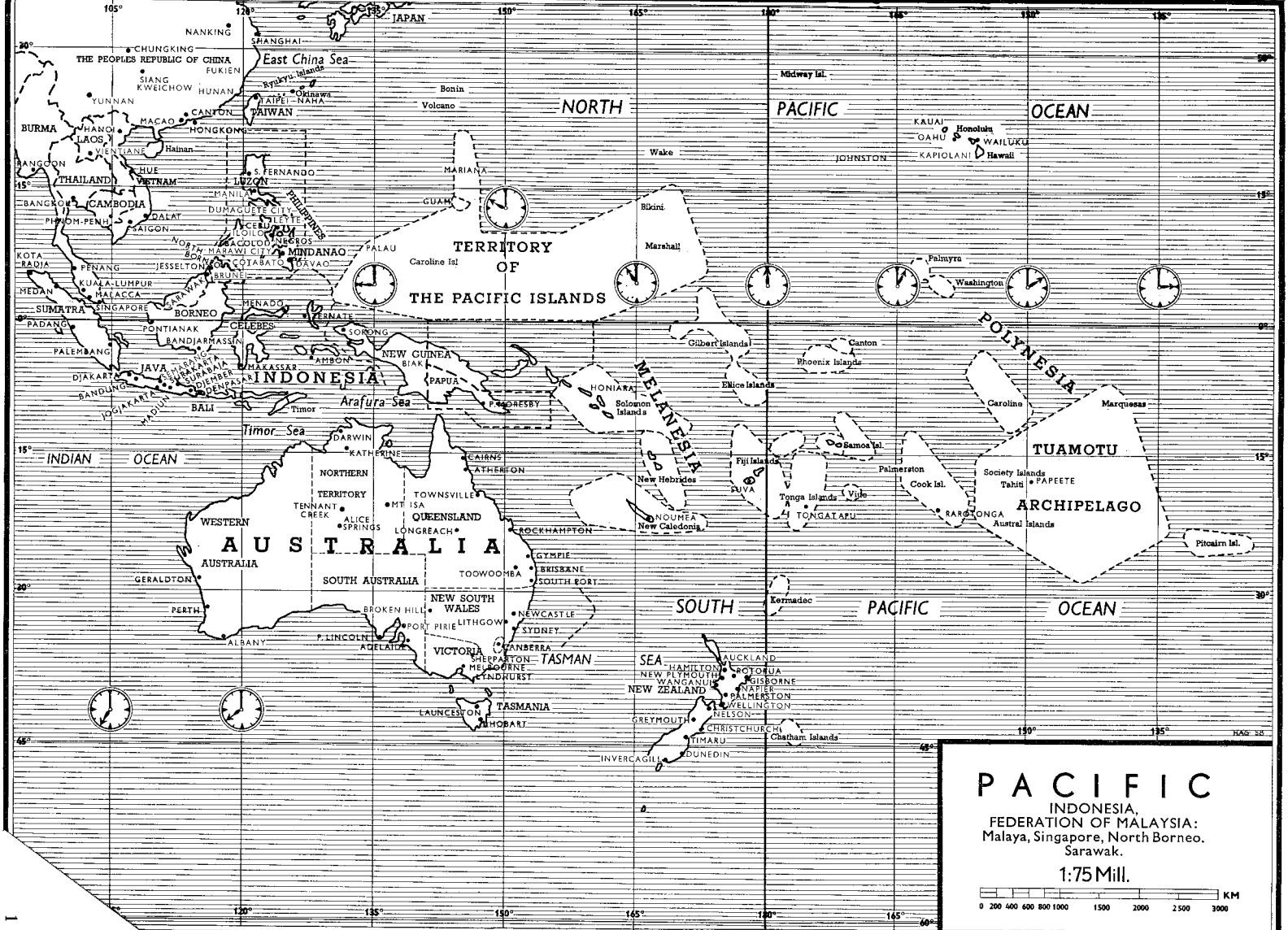
Network I (Home Sce): 1010kc – 4684kc 64.05m – 5950kc 50.42m – 7540kc 39.80m.

Network II (Foreign Sce): 12000kc – 9840kc 30.49m – 11840kc 25.34m.

Network III: 9760kc 30.74m – 11760kc 25.51m – 12620kc 24.00m – 15100kc 19.87m.

HOME SCE: 21.50–23.45, 03.30–05.50, 09.00–15.45 – **N:** 22.30, 04.00, 04.30, 11.30, 12.00, 13.45, 14.45.

FOREIGN SCE: English: 01.15–02.15, 04.30–04.45, 10.00–10.30, 11.00–11.30 (Music), 13.30–14.00, 15.30–16.00 on Net II (exc. 10.00 and 15.30 on Net III) – On Net II: **French:** 04.15–04.30, 10.30–11.00, 14.00–14.30. **Cambodian:** 09.30–10.00, 13.00–13.30. **Cantonese:** 09.15–09.30, 14.30–15.00. **Laotian:** 05.30–06.00, 12.30–13.00. **Standard Chi-**


PACIFIC
INDONESIA,
FEDERATION OF MALAYSIA:
Malaya, Singapore, North Borneo.
Sarawak.
1:75 Mill.
KM
0 200 400 600 800 1000 1500 2000 2500 3000
NORTH PACIFIC OCEAN
SOUTH PACIFIC OCEAN
INDIAN OCEAN
TASMAN SEA
TERRITORY OF THE PACIFIC ISLANDS
POLYNESIA
MELANESIA
TUAMOTU ARCHIPELAGO
AUSTRALIA
INDONESIA
NEW ZEALAND
THE PEOPLES REPUBLIC OF CHINA
East China Sea
Arafura Sea
Timor Sea
JAPAN
TAIWAN
PHILIPPINES
BURMA
THAILAND
CAMBODIA
VIETNAM
LAOS
BORNEO
SUMATRA
JAVA
CELEBES
NEW GUINEA
PAPUA
TASMANIA
NEW SOUTH WALES
VICTORIA
QUEENSLAND
SOUTH AUSTRALIA
WESTERN AUSTRALIA
NORTHERN TERRITORY
Bonin Volcano
Ryukyu Islands
Midway Isl.
Wake
Marshall
Caroline Isl
Gilbert Islands
Ellice Islands
Phoenix Islands
Canton
Palmyra
Washington
Samoa Isl.
Fiji Islands
New Hebrides
Solomon Islands
New Caledonia
Tonga Islands
Cook Isl.
Society Islands
Tahiti
Marquesas
Caroline
Pitcairn Isl.
Kermadec
Chatham Islands
Australal Islands
KAUAI
OAHU
Honolulu
WAILUKU
KAPIOLANI
Hawaii
JOHNSTON
NANKING
SHANGHAI
CHUNGKING
FUKIEN
SIANG
KWEICHOW
HUNAN
YUNNAN
CANTON
HONGKONG
MACAO
HANOI
LAOS
VIENTIANE
Hainan
RANGOON
HUE
THAILAND
BANGKOK
DALAT
PHNOM-PENH
SAIGON
KOTA RADJA
PENANG
KUALA-LUMPUR
MALACCA
MEDAN
SINGAPORE
PADANG
PONTIANAK
PALEMBANG
BANDJARMASSIN
JESSELTON
BRUNEE
SARAWAK
MENADO
TERNATE
SORONG
AMBON
MAKASSAR
SEMARANG
SURABAJA
DJAKARTA
BANDUNG
JOGJAKARTA
MADUN
DENPASAR
BALI
Timor
BIAK
PAPUA
P. MORESBY
HONIARA
NOUMEA
Tonga Islands
TONGATAPU
RAROTONGA
Papeete
Tahiti
Vila
SUVA
Palmerston
Cook Isl.
MARIANA
GUAM
PALAU
LUZON
MANILA
S. FERNANDO
DUMAGUETE CITY
CEBU
LEYTE
ILOILO
BACOLOD
NEGROS
MARAWI CITY
MINDANAO
COTABATO
DAVAO
DARWIN
KATHERINE
CAIRNS
ATHERTON
TOWNSVILLE
MT ISA
TENNANT CREEK
ALICE SPRINGS
LONGREACH
ROCKHAMPTON
GYMPIE
BRISBANE
SOUTH PORT
TOOWOOMBA
GERALDTON
PERTH
ALBANY
BROKEN HILL
PORT PIRIE
P. LINCOLN
ADELAIDE
LITHGOW
NEWCASTLE
SYDNEY
CANBERRA
SHEPPARTON
MELBOURNE
LYNDHURST
LAUNCESTON
HOBART
AUCKLAND
HAMILTON
NEW PLYMOUTH
WANGANUI
ROTORUA
GISBORNE
NAPIER
PALMERSTON
WELLINGTON
NELSON
GREYMOUTH
CHRISTCHURCH
TIMARU
DUNEDIN
INVERCAGILL

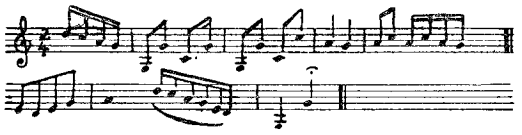
nese: 04.45–05.00, 11.30–12.00. **Thai:** 12.00–12.30, 15.00–15.30. On Net III: Japanese 13.30 – 14.00.
ANN: E: "This is the Voice of Vietnam, broadc. from Hanoi, Capital of the Democratic Republic of Vietnam" – V. by QSL-card. Prgr. schedules, pamphlets, pennants free. Records accepted.

VIETNAM (Republic)

L.T: GMT+8 h – **Pr.L:** Vietnamese, French, Chinese, English.
NATIONAL RADIO BROADCASTING NETWORK (Go.)
Called "VTVN" (Standing for "Vo-Tuyên Viêt-Nam") – **ADDR:** 3 Duong Phan-Dinh-Phung, Saigon. **Te:** 25935. **Cable:** "VTVN" – **L.P:** Dir: P.-Xuân-Ninh. Dep. Dir: T. van-Tân. Dir. Tec: N-van-Lân. Dir. Prgr: N.-Xuân-Viên. Dir. Adm: P. ba-Khanh.
STATIONS: Radio VTVN, Saigon.

kc	m	Prgr.	kc	m	Prgr.	kc	m	Prgr.
610	491	B	1360	220	AFRS	7265	41.29	B
750	400	D	4877	62.51	A	9620	31.19	C
870	344.8	A	6165	48.66	A	11920	25.17	A
1090	275	C	7245	41.41	A	11950	25.10	A

FM: 106.7Mc (A), 103.3Mc (B), 105.1Mc (C).
HOME SCE: Prgr. A (Vietnamese only): 22.00–16.00. **N:** 22.15, 23.00, 23.45, 02.50, 04.30, 06.30, 08.00, 09.00, 10.10, 11.00, 13.25, 15.55. **Prgr. B (Vietnamese, English, Thai):** 22.00–00.15, 03.30–07.15, 09.00–15.30 – **Vietnamese:** 22.00–23.30, 03.30–05.00, 05.45–07.15, 09.00–12.30, 13.45–15.30. **N:** 22.15, 04.30, 11.00 – **L.L: (English):** 13.00 – **English:** 23.30–24.00, 05.00–05.30, 13.15–14.30. **N:** 23.30, 05.00, 14.15 – **Thai:** 00.00–00.30, 12.30–13.00, **N:** 00.00, 12.30.
Prgr. C (Vietnamese, French, Chinese, Cambodian): 22.00–01.15, 03.00–06.45, 08.00–15.30: **Vietnamese:** 22.00–23.00, 15.00–15.30. **N:** 22.15 – **L.L (English):** 22.45 – **French:** 23.00–24.00, 03.00–05.00, 11.15–14.30. **N:** 23.10, 04.30, 11.45 – **Chinese:** 00.00–01.15, 05.00–06.45, 09.00–10.00. **N:** 00.00, 05.00, 09.00 – **Cambodian:** 10.00–11.00. **N:** 10.05 – **Chinese:** 09.00–13.00. **N:** 09.00, 10.00, 11.00, 12.00.
AFRS Prgr. (in English only): 22.00–16.00.
ANN: Vietnamese: "Dây là Dài Tiêng Nói Núoc Viêt-Nam Công-Hòa phát thanh tù Saigon". F: "Ici VTVN, La voix de la république du Viet-Nam, émettant de Saigon". E: "This is VTVN, the Voice of the Republic of Viet-Nam broadcasting from Saigon" – **INT-SIG:**



V. by QSL-card.
REGIONAL STATIONS:

Location	kc	m	Location	kc	m
Huê	670	447.7	Banmethuot	4810	62.37
Banmethuot	690	434.8	Dalat	6116	49.05
Baxuyen	780	385.0	Dalat	7142	42.01
Quang Ngãi	890	337.0	Huê	7205	41.64
Dalat	1440	208.0	Huê	9670	31.02
Nhatrang	1537	195.0	Nhatrang	9720	30.86

Huê: In Vietnamese: 22.00–00.45, 02.00–05.45, 08.00–15.00.**Banmethuot:** Sedang 23.00–23.30. Bahnar 23.30–24.00. Djarai 03.00–03.30. Ede 03.30–04.00. Vietnamese 04.00–06.00, 10.00–14.00.
Baxuyen: Cambodian 23.00–24.00, 09.00–10.00. Vietnamese 03.30–05.00, 10.00–13.00.
Quang Ngãi: Vietnamese 22.30–00.15, 03.30–05.15, 10.00–13.00.
Dalat: Vietnamese 23.30–00.15, 04.00–06.00, 10.15–13.45. Koho-Churu 00.15–01.15, 09.45–10.45.
Nhatrang: Vietnamese 22.15–00.15, 02.00–05.45, 08.00–15.00.

YEMEN

L: GMT+3h – **Pr.L:** Aracic.
RADIO SANAA (Go.)
ADDR: Sanaa – **L.P:** Dir. Gen: A. Humran. Dir. Tec: A. Abiad.
STATIONS: 881kc 10kW – 5950kc 50.42m 25kW – 15710kc 19.10m 10kW.
HOME SCE. in Arabic: 03.00–06.00, 11.00–15.00, 16.00–22.00 – **N:** 04.00, 12.00, 17.00, 19.45 – ANN: "Huna San'aa" – V. by letter. Rp.

AUSTRALIA (Commonwealth of)

L.T: Ea. Austr: GMT+10 h, So. Austr: GMT+9½ h, We. Austr: GMT+8 h – **Pr.L:** English.

AUSTRALIAN BROADCASTING COMMISSION (ABC)

Constituted under the Broadc. and Television Act 1942–62. The Australian National Broadc. Sce. prgr's are the responsibility of the A.B.C., which is responsible to the Postmaster-General. The technical sce's in Radio are provided by the Postmaster-General's Dept., and for TV by the A.B.C. Engineering Dept.
FI: By annual appropriation from the Commonwealth Go's budget.
ADDR: Head Office: 264 Pitt St, Box 487 G.P.O., Sydney – **Cable:** ABCOM. **Te:** 20657.
L.P: Chmn: Dr. J. R. Darling, C.M.G., O.B.E., Gen. Mgr: Sir Charles Moses, C.B.E. Asst. Gen. Mgr. (Adm): T. S. Duckmanton. Asst. Gen. Mgr. (Prgr): C. W. Semmler. Asst. Gen. Mgr. (Gen): A. N. Finley. Contr. News: W. S. Hamilton. Contr. Tech. Sce's: V. Kenna. Dir. Publicity & Concerts: Charles Buttrose. Dir. Prgr's (Overseas): P. W. R. Homfray.

THE NATIONAL BROADCASTING SERVICE

MEDIUM WAVE SERVICE: [1]=Metropolitan. [2]=Regional.

Australian Capital Territory

Call	kc	kW	Location	
2CY[2]	850	10	Canberra	a)
2CN[1]	1540	2	Canberra	b)
New South Wales				
2CR[2]	550	50	Orange	a)
2ML[2]	560	0.2	Murwillumbah	a)
2FC[1]	610	50	Sydney	b)
2NU[2]	650	10	Tamworth	a)
2CO[2]	670	10	Albury	a)
2KP[2]	680	10	Kempsey	a)
2NR[2]	700	50	Grafton	a)
2TR[2]	720	0.2	Taree	a)
2BL[1]	740	50	Sydney	a)
2NB[2]	760	1	Broken Hill	c)
2AN[2]	760	0.05	Armidale	a)
2BA[2]	810	10	Bega	a)
2GL[2]	820	10	Glen Innes	a)
2NC[2]	1230	10	Newcastle	b)
2NA[2]	1510	10	Newcastle	a)
2LG[2]	1570	0.2	Lithgow	a)
2WN[2]	1580	2	Wollongong	a)

Victoria °=Shortwave.

3WV[2]	580	50	Horsham	a)
3AR[1]	°620	50	Melbourne	a)
3LO[1]	°770	50	Melbourne	b)
3GI[2]	830	10	Sale	a)
3WL[2]	1570	0.2	Warnambool	a)

Queensland °=Shortwave.

4QL[2]	540	10	Longreach	a)
4QR[1]	590	50	Brisbane	b)
4AT[2]	600	0.5	Atherton	a)
4QN[2]	630	50	Townsville	a)
4QA[2]	720	2	Mackay	a)
4QS	750	10	Toowoomba	a)
4QG[1]	°790	10	Brisbane	a)
4RK[2]	840	10	Rockhampton	a)
4QB[2]	910	2	Maryborough	a)
4QY[2]	940	2	Cairns	a)
4MI[2]	1080	0.2	Mount Isa	a)
4GM[2]	1570	0.2	Gympie	a)
4SO[2]	1590	0.2	Southport	a)
South Australia				
5CK[2]	640	10	Port Pirie	c)
5CL[1]	730	50	Adelaide	c)
5AN[1]	890	10	Adelaide	d)
5PA[2]	1160	2	Penola	c)
5LN[2]	1530	0.2	Port Lincoln	c)
5WM[2]	1580	0.05	Woomera	c)
5MG[2]	1580	0.2	R. Range	c)
5MV[2]	1590	2	Mt.Gambier	c)
			Renmark	c)
Western Australia				
6WA[2]	560	50	Wagin	c)
6NM[2]	600	0.2	Northam	c)
6AL[2]	650	0.4	Albany	e)
6WF[1]	690	50	Perth	f)
6GF[2]	720	2	Kalgoorlie	e)
6WN[1]	810	10	Perth	e)
6GN[2]	830	2	Geraldton	c)
Tasmania				
7ZL[1]	600	10	Hobart	a)
7QN[2]	630	0.2	Queenstown	a)
7NT[2]	710	10	Launceston	a)
7ZR[1]	940	10	Hobart	b)
Northern Territory				
8DR[2]	650	2	Darwin	c)
8KN[2]	670	0.05	Katherine	c)
8TC[2]	680	0.05	Tennant Creek	c)
8AL[2]	1530	0.05	Alice Springs	c)
Papua/New Guinea °=Shortwave				
9PA	°1250kc	2kW	Port Moresby	g)
9RB	810 – 2 –		Rabaul	g)

a) 20.00(Sun 20.30)–14.07. b) 20.00(Sun 20.30)–14.00. c) 20.00(Sun 20.30)–14.37. d) 20.00(Sun 20.30)–14.30. e) 22.00(Sun 22.30)–16.07. f) 22.00(Sun 22.30)–16.00. g) 20.00(Sun 20.30)–03.45, 06.15–12.45.
The Marconi Company Ltd, G.B: Two 5kW mw-tr's (Hobart).

DOMESTIC SHORT WAVE SERVICE

ADDR: Sydney: A.B.C., Box 487, G.P.O – **Melbourne:** A.B.C., Box 1686, G.P.O – **Brisbane:** A.B.C., Box 293 E, G.P.O – **Perth:** A.B.C., Box 190 D, G.P.O – **Port Moresby:** A.B.C., Port Moresby.
STATIONS: Sydney: VLI (2kW) – **Melbourne:** VLH (10kW) & VLR (10kW) – **Brisbane:** VLQ (10kW) & VLM (10kW) – **Perth:** VLW (10 kW) & VLX (10kW) – **Port Moresby:** VLT (10kW) & VLK (10kW).

Call	kc	m	h of tr.
VLI6	6090	49.26	20.00(Sun 20.30)–14.07
VLH11	11880	25.25	20.00(Sun 20.30)–23.15(Sat 22.45)
VLH15	15230	19.70	23.30(Sat 23.00)–08.15
VLH9	9680	30.99	08.30–13.30(Sat 14.00)
VLR6	6150	48.78	20.00(Sun 20.30)–22.30(Sun 22.15), 08.30–13.00
VLR9	9680	30.99	22.45(Sun 22.30)–08.30
VLQ9	9660	31.06	20.00(Sun 20.30)–13.30(Sat 14.00)
VLM4	4920	60.98	20.00(Sun 20.30)–13.30(Sat 14.00)
VLW6	6140	48.86	22.00(Sun 22.30)-00.00, 10.30-15.30 (Sat 16.00)
VLW9	9610	31.22	00.15–10.15
VLX9	9610	31.22	as VLW6
VLX15	15425	19.45	00.15–10.15
VLT6	6130	48.94	20.00(Sun 20.30)–22.00, 07.00–13.30 (Sat 14.00)
VLT9	9520	31.51	22.15–06.45

VLR relays 3LO, VLH relays 3AR, VLM relays 4QG, VLI takes N.S.W. regional prgr's, VLQ takes Queensland regional prgr's, VLW and VLX takes We. Australian regional prgr's, VLT relays 9PA.
N: 20.00 (not Sun), 20.30 (not Sun), 20.45, 21.15(Sun 21.30), 21.45 (Sun 23.00), 00.25(not Sat, Sun), 02.30, 03.30, 06.00(not Sun), 09.00, 11.00(not Sat), 13.00(BBC & Aust), 14.00 – **Wrp:** included in N, also 22.45(Sun), 02.40(Sat), 02.45(Mo–Fri), 03.48(Mo–Fri), 08.28(Sun), 08.55(Sat) – **T.S:** on the h.
NOTE: Although times are in GMT, calendar days apply to the Ea. States of Aust. only – **ANN:** "This is the A.B.C...." – **INT-SIG:** Three Gongs (C.F.A.) – **V.** by QSL-card and letter. Re. to ABC in capital city of state in which st. is located – **PUB:** "TV Times", R. Australia Prgr. Guide, Schools Broadcasts booklets.

OVERSEAS SERVICE – R. AUSTRALIA

ADDR: R. Australia, P.O. Box 428G, G.P.O, Melbourne. **Cable:** Newscast. **Te:** 676911.
TRANSMITTERS: The tr's of STC, AWA and RCA, manufacture are located at Shepparton – 4×100kW, 2×50kW and 1×10kW, and Lyndhurst – 1×10kW, and are capable of operating on any freq. allocated for international broadc. in the 13, 16, 19, 25, 31, 41 and 49 m.b.
NOTE: R. Australia in common with all international broadc. st's has no assigned freq's, but is allocated certain freq's for use during definite periods.
SERVICES: I: So, So. Ea, So. We. As. II: Ea. As, No. Pacific Isl. III: So. Pacific Isl. IV: Mid-Pacific Isl. V: British Isles, Eu. VI: No. America (Ea.). VII: No. America (We.). VIII: Af.

Transmissions October '63–April '64

English		kc		kc
I:	22.14–00.30	11840, 15220	VIII: 04.29–05.45	17820
	00.30–01.00	15220, 17870	17.00–19.00	9600
	01.00–08.00	17870, 21540	17.29–18.45	7225
	08.00–08.28	15220, 17870	**French**	
	08.28–09.00	15220, 17870	I: 23.15–00.15	15330, 11760
		11880	III: 23.15–00.15	17715
	09.00–09.30	15220, 11880	IV: 00.30–01.30	17715, 15180
	09.30–09.58	11880	**Indonesian**	
	09.58–14.00	11880, 9570	I: 06.00–08.00	15220, 17820
	14.00–17.30	9570, 7220	09.29–11.00	7220, 11740
II:	08.28–10.00	11810	22.14–23.15	15330, 11760
	11.00–12.12	11810, 9580	**Mandarin**	
	20.58–00.15	15240	I: 11.00–13.00	7220, 11740
III:	06.00–09.15	9570, 11710	**Thai**	
	20.00–22.00	11840	I: 13.30–14.30	9540, 11790
IV:	02.29–06.45	15240	**Japanese**	
	06.59–12.12	7190	II: 10.00–11.00	9580, 11810
	20.00–22.00	15315	**Vietnamese**	
V:	08.14–09.15	9570, 11710	I: 12.29–13.30	9540, 11790
VI:	01.00–04.00	15220, 17840	**Cantonese**	
	12.14–13.15	9580	I: 13.00–14.00	7220, 11740
VII:	01.00–04.00	15220, 17840		

Freq. are subject to alteration. Details of alterations are given in the transmissions concerned for three days before the effective date and in "Transmission Parade" and "DX-ers Calling".

FIXED PROGRAMMES in English:
N: 00.15, 01.30, 02.30, 03.30, 04.00, 05.00, 06.00, 07.00, 08.45 (27/10–28/3), 09.00, 10.00 (Dictation), 11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 17.30, 18.30, 20.00, 21.00, 21.45, 22.20, 23.30 – **Mailbags:** Pacific/Asia/Africa Edition: Sat: 21.15, Sun: 01.00, 05.30, 11.30, 16.45, 17.10, British Isles/European Edition: Sun: 06.45, 08.30 (27/10–28/3). No. American Edition: Mo 01.10, 03.00, 12.30.
Dx Programme: Sat 22.00(II), Sun 13.00(VI), Sun 18.45(VIII), Sun 09.00 to V (27/10–28/3), 07.15 (28/3–24/10), 14.45(I+V), Mo 02.15(VI+VII) – **Request Prgr: Listeners Choice:** Sun 11.10, D 14.13. **Music by Request:** W 23.40. **Sport:** Results W 08.30. Descriptions and results of major sports events in Australia Sat 02.29–07.30 on 21540kc to I. **Stock exchange** Fri 08.45, 13.06, 14.45, Sat 02.00. **National Music:** Music by Australian artists and composers is broadc. regularly in all tr's – **Program Previews:** A preview is given at the start of each daily tr. and three min. before the close of tr. to the resp. areas – **Transmission Parade:** Fri 20.56, 22.10, Sat 05.45, 14.55.
FIXED PROGRAMMES in other languages:
FRENCH: N: 23.30, 00.45 – **N, Commentary:** Tues–Sat 23.42, 00.57. **Mailbag:** Sun 00.00, 01.00.
INDONESIAN: N: 09.40, 10.30, 23.45 – **Mailbag:** Sun: 06.30, 10.00. **"English Lessons for Indonesians":** Tues, Thurs: 06.30, 10.00. 13.30 (Thurs only).
JAPANESE: N: 10.30 – **Mailbag:** Sun 10.10 – **DX-Session:** Sun 10.45 – **Commentary:** Mo–Fri 10.42.
MANDARIN: N: 11.15, 12.45 – **N, Commentary:** Mo–Fri 11.27 – **Mailbag:** Sun 12.00.
CANTONESE: N: 13.30 – **Commentary:** Mo–Fri 13.42 – **Storyteller:** Sat 13.10.
THAI: N: 14.00. **Commentary:** Mo–Fri 14.15 – **Mailbag:** Sun 13.45.
VIETNAMESE: N: 13.00. **Commentary:** Mo–Fri 13.15 – **Mailbag:** Sun 12.40.
ANN: "This is R. Australia transmitting the Overseas Service from the Melbourne studios of the A.B.C." – "You are tuned to R. Australia, the Overseas Service of the A.B.C." Freq's and wavelengths are given at frequent intervals.
TUNING AND INT-SIG: Musical Box playing "Waltzing Matilda" for five min. preceding prgr's to all areas: Prgr's commence with chimes of Elizabeth Street Post Office Clock and the laugh of the Australian bird, the Kookaburra.
V: Listeners reports are welcomed and correct reports are confirmed by verification card.
PUB: A prgr. booklet is available free upon application. Issued twice yearly covering April–Oct. and Nov.–March.

PRIVATELY OWNED COMMERCIAL BROADCASTING STATIONS

Associated in a body called: **Federation of Australian Commercial Broadcasters. ADDR:** 47, York Street, Sydney – **Te:** 29-1738. **Cable:** AFOBS – **L.P:** Federal Dir: M. Baker. Also Promotion and Research Organization "Australian Radio Advertising Bureau", 47 York Str, Sydney – **Te:** 29-2623 – **L.P:** Dir: B. J. Dargaville – **The Australian Broadcasting Control Board** is a Go. Authority responsible for the planning of the broadc. sce's ensuring that technical equipment and prgr.sce's are of adequate standards and determining power, frequency and periods of operating of st's. **ADDR:** 373 Elizabeth Str, Melbourne, C.1. **Cable:** Conboard Melbourne. **Te:** 30-4321 – **L.P:** Chairman: R. G. Osborne. Ag. Secr: J. A. McNamara. Dir. Tec: D. McDonald. Dir. Prgr: D. A. Jose.
2CH is controlled by the New South Wales Council of Churches, **2SM** by the Roman Catholic Church, **5KA** and **5AU** by the Methodist church.
Abbreviations: Amalg=Amalgamated, Ass=Associated, Me=Melbourne, B.Casters=Broadcasters, Transc=Transcontinental.

NEW SOUTH WALES: Call letter: 2---.
Note: Times quoted are GMT, but refer to local calender days.
Times given are Mo–Fri. Sat & Sun times not indicated.

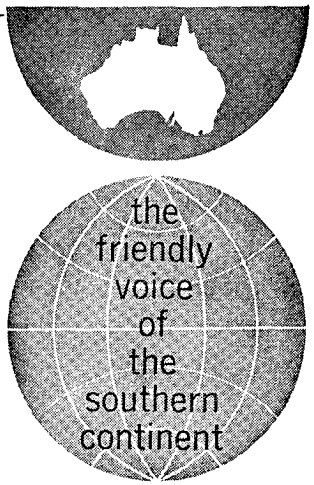
	Call	kc	kW	Tr. times		Call	kc	kW	Tr. times
1)	BH	660	0.2	20.00–13.00	20)	DU	1250	2	19.30–14.00
2)	KA	780	2	20.00–12.30	21)	SM	1270	5	24 h
3)	GB	870	5	24 h	22)	TM	1290	2	19.57–13.30
4)	LM	900	2/1	20.00–12.30	23)	LF	1340	2	20.00–13.05
5)	XL	920	2/1	20.00–13.00	24)	NX	1360	2	19.30–13.00
6)	UE	950	5	24 h	25)	LT	1370	0.5	19.50–12.30
7)	KM	980	2	19.30–13.30	26)	GN	1380	2	20.00–13.00
8)	GZ	990	2	20.00–13.30	27)	PK	1400	2	20.30–13.00
9)	KY	1020	5	24 h	28)	KO	1410	2	24 h
10)	CA	1050	2	19.30–13.00	29)	WL	1430	2	19.00–14.00
11)	RG	1070	2/1	20.00–13.00	30)	MW	1440	2	20.00–13.00
12)	MO	1080	1	20.00–12.30	31)	MG	1450	1	20.00–13.15
13)	UW	1110	5	24 h	32)	NM	1460	0.5	19.30–13.00
14)	AD	1130	2/1	20.00–12.30	33)	BE	1480	1	20.30–12.00
15)	HD	1140	2	19.00–14.00	34)	AY	1490	2	20.00–13.30
16)	WG	1150	2	20.00–13.05	35)	BS	1500	2	20.00–13.30
17)	CH	1170	5	19.30–14.00	36)	QN	1520	2	20.30–12.30
18)	NZ	1190	2	20.00–13.00	37)	VM	1530	2/0.5	20.00–13.03
19)	GF	1210	2/1	20.00–13.00	38)	RE	1560	2/0.5	20.00–12.30

VICTORIA: Call letter: 3---.

39)	UL	880	2/1	19.30–13.00	48)	SR	1260	2	19.30–13.30
40)	UZ	930	5	24 h	49)	AW	1280	5	18.30–15.00
41)	BO	960	2/1	19.30–14.00	50)	BA	1320	2/1	19.30–14.00
42)	HA	1000	2	19.00–13.00	51)	SH	1330	2	20.00–13.05
43)	DB	1030	5	18.30–15.00	52)	GL	1350	2/1	19.30–13.00
43)	LK	1090	2	19.30–13.30	53)	XY	1420	5	24 h
44)	CS	1130	2/1	20.00–12.30	54)	CV	1440	2/1	20.00–13.00
45)	KZ	1180	5	19.30–13.30	55)	MA	1470	2	20.30–12.30
46)	YB	1210	2/1	20.30–13.30	56)	AK	1500	2	20.00–09.00(Su) 21.00–07.00(Wi)
47)	TR	1240	2	19.00–14.00	57)	NE	1600	2/1	19.30–14.00

QUEENSLAND: Call letter: 4--.

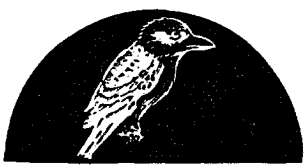
58)	KQ	690	2	24 h	69)	BC	1120	2	24 h
59)	TO	780	2/1	19.30–13.30	70)	MB	1160	2	19.30–13.00
60)	GR	860	2	19.30–13.00	71)	AK	1220	2	19.00–13.00
61)	WK	880	2/1	20.00–12.30	71)	BK	1300	2	19.00–13.00
62)	VL	920	2/1	20.00–12.30	72)	BU	1330	2	20.00–12.30
63)	AY	960	2/1	19.30–13.30	73)	GY	1350	2/0.5	19.30–12.15
64)	RO	1000	2	19.30–13.00	74)	LM	1370	0.5	20.00–04.15 08.00–13.00
65)	CA	1010	2/1	20.00–13.00					
66)	IP	1010	1	20.00–12.30	75)	MK	1380	2	20.00 12.30
67)	SB	1060	2	20.00–12.30	76)	BH	1390	2	19.00–14.00
68)	LG	1100	2	20.00–04.30 07.00–12.00	77)	ZR	1480	2/1	20.30–12.30



Daily programmes in
English
French
Indonesian
Chinese
Japanese
Thai

For listeners in
Asia and Pacific Islands
British Isles and Europe
North America
Africa

Radio Australia



OVERSEAS SERVICE

Australian Broadcasting Commision
P. O. Box 428G, G. P. O.,
Melbourne, Australia

	Call	kc	kW	Tr. times
SOUTH AUSTRALIA: Call letter: 5––.				
78)	RM	800	2	20.15–13.30
79)	DN	970	2	24 h
80)	PI	1040	2	20.00–13.45
81)	KA	1200	2	24 h
WESTERN AUSTRALIA: Call letter: 6––.				
81B)	VA	780	2	22.00–14.30
82A)	KG	860	2	22.00–06.00
				08.30–14.30
83A)	PR	880	2	21.30–15.00
84)	BY	900	2	22.00–14.30
85)	NA	920	2	22.00–17.00
83B)	TZ	960	2	22.00–14.15
86)	AM	980	2	22.30–14.30
87)	PM	1000	2	22.00–15.00
TASMANIA: Call letter: 7––.				
93)	SD	540	2	21.00–03.00
				06.30–12.15
94)	BU	560	0.5	20.30–12.30
95)	QT	720	0.5	21.00–03.00
				06.30–12.30
NORTHERN TERRITORY: Call letter: 8––.				
101)	DN	1240	2	20.30–14.00

	Call	kc	kW	Tr. times
80)	AD	1310	2	24 h
81A)	SE	1370	0.5	20.00–13.45
82)	AU	1450	2	20.00–13.30
80)	MU	1460	0.5	20.00–13.45
88)	GE	1010	2	21.55–06.00
				09.00–14.30
89)	WB	1070	2	22.00–06.00
				09.10–14.30
90)	IX	1080	2	21.45–15.00
91)	MD	1100	2	23.00–06.15
				09.10–14.30
83A)	CI	1130	2	22.00–06.30
				09.00–14.30
92)	KY	1210	2	24 h
96)	HO	860	2	19.00–14.00
97)	AD	900	0.5	21.00–13.00
98)	EX	1010	2	20.30–13.00
99)	HT	1080	2	19.30–14.00
100)	LA	1100	2	20.00–13.00

1) **Broadc. St. 2BH,** 273 Argent st, Broken Hill. **L.P:** St. Mgr: J. W. Prider. **ANN:** "R. Silver City". **V.** by QSL-card.

2) **Transcontinental Broadc. Corp. Ltd,** Rural Bank Bldg. Katoomba St, Katoomba. **L.P:** St. Mgr: J. Emmet. **ANN:** "Voice of the Mountains". **V.** by letter. **Rp.**

3) **Broadc. St. 2GB Pty Ltd,** 136 Phillip St, Sydney. **L.P:** St. Mgr: D. L. Foster. **V.** by card and/or letter. **Rp.**

4) **Richmond River B.Casters Pty Ltd,** Bruxner Highway, Goonellabah, Lismore – **L.P:** Mgr: P. Lebrun.

5) **Cooma B.Casters Pty Ltd,** P.O. Box 58, Cooma. **L.P:** St. Mgr: B. Spithill. **ANN:** "The Voice of South Eastern Australia" – **V.** by QSL-card – 6) **R. 2UE Sydney Pty Ltd,** 29 Bligh St, Sydney. **L.P:** Gen. Mgr: A. D. Faulkner.

7) **R. Kempsey Ltd,** P.O. Box 136, Kempsey. **L.P:** St. Mgr: L. B. Harte – **V.** by QSL-card. **Rp.**

8) **Country Broadc. Sce. Ltd,** Sale St, Orange. **L.P:** St. Mgr: A. Ridley. **ANN:** 2GZ Central New South Wales. **V.** by letter.

9) **Labour Council of New South Wales,** Broadc. St. 2KY, 32 Orwell St, Pott's Point, Sydney. **L.P:** Gen. Mgr: L. R. Hood.

10) **Canberra B.Casters Pty Ltd,** 64 Northbourne Ave, Canberra City. **L.P:** St. Mgr: P. R. Carrodus. **V.** by QSL-card.

11) **2RG B.Casters Pty Ltd,** Ulong St, Griffith. **L.P:** St. Mgr: R. Gamble. **V.** by letter – 12) **2MO Gunnedah Pty Ltd,** P.O. Box 62 Gunnedah. **L.P:** St. Mgr: L. Worms. **V.** by letter.

13) **Commonwealth Broadc. Corp. Pty Ltd,** 365 Kent St, Sydney. **L.P:** St. Mgr: F. R. Jeffcoat. **V.** by QSL-card.

14) **New England B.Casters Pty Ltd,** Broadcast House, Rusden St, Armidale. **L.P:** Mgr: R. V. Brislan.

15) **Airsales Broadc. Pty Ltd,** P.O. Box 19, Mayfield. **L.P:** St. Mgr: O. J. Story. **V.** by QSL-card. **ANN:** "First in Newcastle".

16) **Riverina B.Casters,** 16 Fitzmaurice St, Wagga Wagga. **L.P:** St. Mgr: J. McCormick. **V.** by letter.

17) **Station 2CH** (Owner: NSW World Council of Churches). Operated for the owners by Amalgamated Wireless Ltd. **Addr:** 47 York St, Sydney. **L.P:** St. Mgr: H. R. Huntley. **V.** by QSL-card. **Rp.**

18) **Northern B.Casters Pty Ltd,** Otho Street, Inverell.

19) **Grafton Broadc. Co. Pty Ltd,** 124 Prince St, Grafton. **L.P:** Mgr: A. L. Cave. **ANN:** "Voice of the Pacific Beautizone". **V.** by letter.

20) **Western B.casters Pty Ltd,** P.O. Box 44, Dubbo. **L.P:** St. Mgr: F. S. Ferguson. **V.** by QSL-card.

21) **Broadc. St. 2SM Pty Ltd,** 257 Clarence St, Sydney – **L.P:** Gen. Mgr: W. H. Stephenson. **V.** by QSL-card.

22) **Tamworth R. Development Co. Pty Ltd,** P.O. Box 21 South Tamworth, N.S.W. **L.P:** St. Mgr: M. M. Moroney. **V.** by QSL-card.

23) **Young B.casters Pty Ltd,** 24 Lovell Street, Young. **Cable:** "Twolf". **L.P:** St. Mgr: J. H. Finlayson. **ANN:** "This is 2LF the friendly station". **V.** by QSL-card.

24) **Hunter B.casters Pty Ltd,** 56 Hunter Street, Newcastle. **Cable:** "Twonx". **L.P:** Mgr: K. C. Robinson.

25) **Lithgow B.casters Pty Ltd,** Great Western Highway, Lithgow. **L.P:** St. Mgr: F. Harper. **V.** by QSL-card.

26) **Goulburn Broadc. Co. Pty Ltd,** P.O. Box 115, Goulburn. **Cable:** "Twogn". **L.P:** St. Mgr: D. J. O'Reilly. **V.** by letter. **Rp.**

27) **Parkes Broadc. Co. Pty Ltd,** 307 Clarinda St, Parkes. Mgr: N. T. W. Spicer – 28) **Radio 2KO Newcastle Pty Ltd,** C.M.L. Building, 110

Hunter St, Newcastle. **Cable:** Twoko. **L.P:** St. Mgr: G. M. Hood. **V.** by QSL-card.
29) **Wollongon Broadc. Pty Ltd,** P.O. Box 34, Wollongong. **Cable:** "Twowl". **L.P:** Gen. Mgr: R. Jackson. **V.** by letter. Rp. preferred. Re. from listeners in New South Wales will not be verified.
30) **Tweed Radio & Broadc. Co. Pty Ltd,** P.O. Box 53, Murwillumbah. **L.P:** St. Mgr: W. G. Diamond. **V.** by QSL-card. **Rp.**
31) **Mudgee Broadc. Co. Pty Ltd,** Wellington Rd, Mudgee. **L.P:** St. Mgr: R. B. Camplin. **V:** Only if re. accompanied by prepared card and reply postage – 32) **Hunter B.casters Pty Ltd,** Bridge Str, Muswellbrook. Mgr: K. C. Robinson.
33) **Radio 2BE Pty Ltd,** P.O. Box 77, Bega. **L.P:** Gen. Mgr: A. J. Kerr. **V.** by letter. **Rp** – 34) **Amalgamated Wireless (A'sia) Ltd,** A.M.P. Building, Dean Street Albury. St. Mgr: E. S. Pattison.
35) **Bathurst B.casters Pty Ltd,** 109 George Str, Bathurst. **Cable:** "Twobs" Bathurst. **L.P:** Gen. Mgr: E. N. Williams. **ANN:** "2BS Centre of the West". **V.** by QSL-card.
36) **Southern Riverina Broadcasters,** 368 George St, Deniliquin. **L.P:** St. Mgr: P. N. Charley. **V.** by QSL-card.
37) **Moree Broadc. & Development Co. Ltd,** 93 Balo St, Moree. **L.P:** St. Mgr: R. E. Morrisby. **V.** by letter. **Rp.**
38) **Manning Valley Broadc. Pty Ltd,** P.O. Box 185, Taree. **L.P:** St. Mgr: A. W. Thompson. **V.** by card and letter.
39) **Associated Broadc. Sce. Ltd,** 43 Victoria St, Warragul. **L.P:** St. Mgr: C. Cameron. **V.** by letter.
40) **Nilsen's Broadc. Sce. Pty Ltd,** 45 Bourke St, Melbourne. **L.P:** St. Mgr: Lewis Bennet. **ANN:** "The Greater 3UZ". Also used, singing annct "Nice to come home to, 3UZ". **V.** by QSL-card.
41) **Amalgamated Wireless (A'sia),** Beehive Chambers, Pall Mall Bendigo. **Cable:** Threebo. **L.P:** St. Mgr: K. Duncan. **V.** by letter **Rp.**
42) **Western Province Radio Pty Ltd,** 37 Gray Str, Hamilton.
43) **Herald Sun Stations,** 36 Flinders Street, Melbourne Cl. **Owner:** Herald & Weekly Times Ltd. **Cable:** Treedb. **L.P:** Mgr: R. C. Crawford. **ANN:** "3DB, 3LK, the Herald-Sun Stations". **V.** by QSL-card.
44) **Colac Broadc. Co. Pty Ltd,** 241 Murray Str, Colac. **L.P:** St. Mgr: C. S. Faulkner. **V.** by QSL-card. **Rp.**
45) **3KZ Broadc. Co. Pty Ltd,** 64 Elizabeth Street, Melbourne. **Cable:** Threekz. **L.P:** St. Mgr: N. E. Balmer. **ANN:** "The Brighter Broadc. Sce, 3KZ Melbourne". **V.** by QSL-card.
46) **Associated Broadc. Sce. Ltd,** P.O. Box 255, Warrnambool. **L.P:** St. Mgr: Eric Collings. **V.** by letter.
47) **Latrobe Valley & Gippsland B.Casters Pty Ltd,** Stawell Str, Sale. **L.P:** St. Mgr: E. W. Ewans – 48) **Associated Broadc. Sce. Ltd,** Box 205, Shepparton. **L.P:** St. Mgr: E. M. Clyne. **V.** by letter.
49) **3AW Broadc. Co. Pty Ltd,** 382 Latrobe Str, Melbourne. **Cable:** Threeaw. **L.P:** St. Mgr: M. F. E. Wright. **ANN:** "Radio Melbourne, 3AW". **V:** No verification – 50) **Ballarat B.Casters Pty Ltd,** Box 360, Ballarat. **L.P:** St. Mgr: E. J. W. Whykes. **V.** by QSL-card. **Rp.**
51) **Central Murray B.Casters Pty Ltd,** 77 McCallum St, Swan Hill. **L.P:** St. Mgr: H. Lithgow. **V.** by QSL-card. **Rp.**
52) **Geelong B.Casters Pty Ltd,** 4 James Str, Geelong. **Cable:** Threegl. **L.P:** Gen. Mgr: J. M. Morwood. **V.** by QSL-card. **Rp.**
53) **Efftee B.Casters Pty Ltd,** 222 Faraday Str, Carlton N3, Melbourne. **Cable:** Threexy. **L.P:** Gen. Mgr: F. R. Mogg. **V.** by QSL-card.
54) **Central Victorian B.Casters Pty Ltd,** P.O. Box 79, Maryborough. **L.P:** St. Mgr: Ken J. Parker. **V.** by letter. **Rp.**
55) **Sunraysia B.Casters Pty Ltd,** P.O. Box 539, Mildura. **L.P:** St. Mgr: M. Folie. **V.** by letter. **Rp.**
56) **Melbourne B.Casters Pty Ltd,** Television City, 22 Bendigo Street, Richmond. **L.P:** St. Mgr: N. Dick. **ANN:** "3AK, The Voice of Television City". **V.** by QSL-card.
57) **Wangaratta Broadc. Co. Pty Ltd,** P.O. Box 167, Wangaratta. **Cable:** "Threene". **L.P:** Man. Dir: D. C. Delarue. **ANN:** "The Voice of North East Victoria". **V.** by card and letter. **Rp.**
58) **Broadc. St. 4KQ. ADDR:** 231 Elizabeth Str, Brisbane. **Cable:** Fourq. **L.P:** Mgr: L. H. Andrews – 59) **Amalgamated Wireless (A'sia) Ltd,** Stanley Str, Townsville. **Cable:** Fourto. Mgr: F. R. Pearce.
60) **Gold Radio Sce. Pty Ltd,** 53 Ruthven Str, Toowoomba. **L.P:** St. Mgr: D. E. Gold. **V.** by letter. **Rp.**
61) **Warwick Broadc. Co. Pty Ltd,** Palmerin Str, Warwick. **Cable:** Fourwk. **L.P:** St. Mgr: W. O. Kinane. **V.** by letter. **Rp.**
62) **Charleville Broadc. Co. Pty Ltd,** P.O. Box 84, Charleville. **L.P:** St. Mgr: W. D. Everson. **ANN:** "The Voice of the Far West". **V.** by QSL-card.
63) **Ayr. B.Casters Pty Ltd,** P.O. Box 880, Townsville. **Cable:** Fouray. **L.P:** St. Mgr: Graham T. Schmid. **V.** by letter. Rp.
64) **Rockhampton Broadc. Co. Pty Ltd,** Rheuben House, East Str, Rockhampton. **Cable:** Fourro. **L.P:** St. Mgr: E. T. Rheuben. **V.** by letter.
65) **Amalgamated Wireless (A'sia) Ltd,** Shields St, Cairns.
66) **Ipswich Broadc. Co. Pty Ltd,** P.O. Box 87, Ipswich. **Cable:** Fourip. **L.P:** St. Mgr: K. Fairweather. Prepared card and reply postage required for verification of reports.
67) **South Burnett Broadc. Co. Ltd,** Alford Str, Kingaroy. **Cable:** Foursb. **L.P:** St. Mgr: G. H. Parker. Prepared card and reply postage required for verification of reports.
68) **Central Queensland Broadc. Corp. Pty Ltd,** Box 20, Longreach. **Cable:** Fourlg. **L.P:** Gen. Mgr: F. L. Nathan. **V.** by letter. **Rp.**
69) **Commonwealth Broadc. Corp. (Qld) Ltd,** Cnr Wharf and Adelaide Str, Brisbane. **L.P:** St. Mgr: M. E. Baker. **ANN:** "4BC, The R. Voice of Queensland – 4BC is never off the air". **V.** by letter.
70) **Maryborough Broadc. Co. Pty Ltd,** 361 Kent Str, Maryborough. **Cable:** Fourmb. **L.P:** St. Mgr: A. P. Wynne. **V.** by card and letter. **Rp.**
71) **Brisbane Broadc. Pty,** 288–298 Queen Str, Brisbane. **Cable:** Fourbk. **L.P:** Mgr: R. Goss – 72) **Bundaberg B.Casters Pty Ltd,** 55 Woongarra St, Bundaberg. **L.P:** St. Mgr: G. McCormack. **V.** by QSL-card.
73) **Gympie Broadc. Co. Ltd,** 98 Mary Street, Gympie. **L.P:** St. Mgr: A. H. Buzacott. **V.** by letter. Rp.
74) **North Queensland Broadc. Corp. Pty Ltd,** P.O. Box 432, Mount Isa. **L.P:** Gen. Mgr: F. L. Nathan. **V.** by letter. Rp.
75) **Mackay Broadc. Sce Pty Ltd,** 38 Gordon Str, Mackay. **Cable:** Fourmk. **L.P:** Gen. Mgr: M. E. Low. **ANN:** "The Voice of the Barrier Reef". **V.** by QSL-card.
76) **B. Casters (Aust) Pty Ltd,** 43 Adelaide Str, Brisbane. **Cable:** Fourbh. **L.P:** Mgr: Norman Llewelyn. **V.** by QSL-card. Rp.
77) **Maranoa Broadc. Co. Ltd,** P. O. Box 22, Roma, Queensland.
78) **River Murray B. Casters Ltd,** P.O. Box 118, Berri. **L.P:** Gen. Mgr: R. Parham. **V.** by QSL-card. Rp.
79) **Hume B. Casters Ltd,** 201-205 Tynte Str, North Adelaide.
80) **Advertiser Newspaper Ltd,** G.P.O. Box 392, Adelaide. **Cable:** Fivead. **L.P:** Mgr: J. M. Fowler. **V.** by QSL-card. Rp.
81) **5KA Broadc. Co. Ltd,** 43 Franklin Str, Adelaide. **Cable:** Fivcka. **L.P:** Gen. Mgr: R. K. Parham. **V.** by QSL-card. Rp.
81A) **S. E. Broadc. Co. Ltd,** P.O. Box 99, Mount Gambier. **L.P:** St. Mgr: C. A. Ferguson. **V.** by QSL-card.
82) **Port Augusta Broadc. Co. Ltd,** P.O. Box 247, Port Augusta. **L.P:** St. Mgr: N. W. Bradley. **V.** by QSL-card. Rp.
81B) **Albany B. Casters Ltd,** 167 York Str. Albany. **Cable:** Sixva. **L.P:** St. Mgr: Ted Furlong. **V.** by letter. Rp.
82A) **Whitfords Broadc. Network,** Exchange Building, 151 Hannan Street, Kalgoorlie. **L.P:** St. Mgr: G. C. Chapman. **V.** by letter.
83A) **Nicholson's Broadc. Sce,** 340 Hay Street East. Perth. **L.P:** Mgr: W. J. Uhrmann – 83B) **Broadc. St. 6TZ** Princep St, Bunbury. **L.P:** St. Mgr: Peter Nash. Prepared card and rp. required for verification.
84) **W.A. B.Casters Pty Ltd,** 38 Mounts Bay Road, Perth. **Cable:** Sixby. **L.P:** Gen. Mgr: B. Samuel. Prepared card and rp. required.
85) **Westland Broadc. Co, Ltd,** Narrogin, We. Australia. **L.P:** Gen. Mgr: R. J. Mercer. Rel. 6KY Perth. **V.** by QSL-card. Rp.
86) **Whitfords Broadc. Network** 115 St. George's Terrace, Perth. Gen. Mgr: D. E. Muir – 87) **Whitfords Broadc. Network** 115 St. George's Terrace, Perth. **Cable:** Whitnet. Gen. Mgr: D. E. Muir.
88) **Whitfords Broadc. Network,** Elanor Street, Geraldton. **Cable:** Whitnet. **L.P:** St. Mgr: L. J. Harris. **V.** by card and/or letter. Rp.
89) **W.A. B.Casters Pty Ltd,** Katanning, We. Australia. **Cable:** Sixix.
90) **W.A. B.Casters Pty Ltd,** Radio House, 38 Mounts Bay Rd, Perth.
91) **W.A. B.Casters Pty Ltd,** Merredin, We. Australia. **Cable:** Sixix. **L.P:** Gen. Mgr: B. Samuel – 92) **Westland Broadc. Co. Ltd,** 17 James Str, Perth. **Cable:** Sixky. **L.P:** Gen. Mgr: J. Mercer. **V.** by QSL-card. Rp.
93) **N.E. Tasmanian Radio B.Casters Pty Ltd,** P.O. Box 109, Scottsdale. **Cable:** Sevensd. **L.P:** St. Mgr: B. Scetrine. **V.** by QSL-card.
94) **Burnie Broadc. Sce Pty Ltd,** P.O. Box 120, Burnie. **Cable:** Sevenbu. **L.P:** Gen. Mgr: T. Lord. **V:** No verification.
95) **W. Coast B.Casters Pty Ltd,** P.O. Box 315, Queenstown. **L.P:** Mgr: H. Ebrall – 96) **Comm. B.Casters Pty Ltd,** G.P.O. Box 542F, Hobart. **Cable:** Sevenho. **L.P:** Mgr: A. Brown. **ANN:** "R. Hobart, 7HO, the big sound in radio". **V.** by QSL-card. Rp.
97) **N. Tasmanian B.Casters Pty Ltd,** P.O. Box 18, Devonport. **Cable:** Sevenad. **L.P:** Mgr: M. Evans.
98) **7EX Pty Ltd,** Watchorn Street, Launceston. **Cable:** Sevenex. **ANN:** "7EX, the Examiner Station". Mgr: A. E. McClelland.
99) **Metropolitan B. Casters Pty Ltd,** G.P.O. Box 572F, Hobart. **Cable:** Sevenht. **L.P:** St. Mgr: John Howell. **ANN:** "Radio 7HT Hobart, Tasmania's top family station". **V.** by letter. Rp.
100) **Findlay & Wills B.Casters Pty Ltd,** B.Cast House, The Quadrant Launceston. **Cable:** Sevilia **L.P:** Gen. Mgr: R. E. Ward. **V.** by QSL-card. Rp.
101) **Darwin B.Casters Pty Ltd,** 16 Smith Street West, Darwin. **L.P:** St. Mgr: D. H. Charlton. **V.** by letter. Rp.

CHRISTMAS ISLAND (British)

L.T: GMT÷9 h – Pr.L: English.
CHRISTMAS ISLAND BROADCASTING SERVICE (Pr.) Owned and operated by RAF. The st. is run entirely by voluntary help. CIBS transmits to British Forces in the Central Pacific and is run by members of all three of H.M. Forces, in conjunction with the Forces Entertainment Sce. and the Transcription Sce. of the BBC. **FI:** RAF funds (Go.) – **ADDR:** R.A.F. Central Pacific, B.F.P.O. 170. **L.P:** Dir. Gen: R. I. Finch. Dir. Tec: F. Hearne.

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STATION: 1450kc 207m 0.1kW – **HOME SCE. in English:** Tues-Sat 03.00–08.00. Sun 00.01–09.00, 19.00–21.00, Mo 00.01–08.00. **N:** 06.00. **ANN:** "This is the Christmas Island Broadc. Sce. broadc. on a freq. of 1450kc – that is to say 207 metres" – **V.** by letter (if time and staff allow) – **PUB:** Prgr. schedule.

COOK ISLANDS (N.Z. Territory)

L.T: GMT÷10½ h – **Pr.L:** English, Maori.
RADIO RAROTONGA (Go.)
ADDR: Rarotonga. **Te:** 24 – **L.P:** Officer in charge: P. F. Henderson. Dir. Tec: S. Kingan.
STATIONS: mw: 0.15kW, sw=0.25kW.

Call	kc	m	Call	kc	m	Call	kc	m
ZKIZA	820	365.9	ZK5	5045	59.46	ZK4	11760	25.51
ZK6	3265	91.87	ZK3	9695	30.94			

HOME SCE. in English, Maori: Mo, Tues, Thurs, Fri 22.45–23.15 on 820/9695kc. Tues 04.30–07.40. Thurs 04.30–08.15, Sat 04.30–07.50 on 820/5045kc – **N: English:** 22.45, 04.32, 07.30 (rel. R. New Zealand) 07.40 (Tues), 08.15 (Thurs), 07.50 (Sat). **Maori:** 22.55, 05.30.
ANN: "This is ZKIZA R. Rarotonga" – **INT-SIG:** Cook Islands Drum Beats – **V.** by QSL-card. Rp.

FIJI (British)

L.T: GMT+12 h – **Pr.L:** Fijian, Hindustani.
FIJI BROADCASTING COMMISSION (Independent Statutory Body, 50% comm. 50% cultural)
FI: By licence payments and adv – **ADDR:** P.O. Box 334, Suva. **Cable:** Broadcom. **Te:** 2621 – **L.P:** Chmn: J. M. Hedstrom, LLB Mgr: J. S. W. Stannage. Dir. Prgr: G. H. King. Dir. Tec: T. C. Agar.
STATIONS:

Call	kc	m	kW	L.	h of tr.
VRH2	840	357	0.4	Vernaculars	18.00–21.00, 04.00–10.30
VRH	930	323	2	English	18.00–10.30(Sat 11.00)
VRH3	890	337	2.5	English/Hindi	18.00–10.30(Sat 11.00)
VRH8	3230	93.0	10	English	18.00–23.30, 04.00–10.30 (Sat 11.00)
VRH9	3346	89.68	10	Vernaculars	04.00–10.30(Sat 11.00)
VRH4	4756	63.08	10	English	23.30–03.45
VRH5	4785	62.70	10	Vernaculars	18.00–21.00, 04.00–06.30

HOME SCE. in English, Fijian, Hindi: W 18.00–10.30(Sat 11.00), Sun 19.00–10.30. **English: N:** 18.45*, 19.00(BBC), 19.45, 20.00(BBC), 01.00 (R. New Zealand), 01.30 (R. Australia), 07.00(BBC), 09.00 (ABC) – **Local N. in Fijian:** W 18.15, 19.45, 01.15, 07.10 – **Wrp:** After N.*, 00.30, 09.15(Sun 09.00) – **Fijian:** Fijian Party Time: 3rd Sat of o. at 09.45–11.00 on 840/3346kc – **ANN:** E: "This is the Fiji Broadc. mommission". Fijian: "Oqo na Fiji Broadc. Commission". Hindi: CYeh Fiji Broadc. Commission Hai" – **INT-SIG:** Beat of Fijian Lali "Log Drum) – **V.** by QSL-card – **F.PL:** VRH 4kW, VRH2 2kW.

GILBERT and ELLICE ISLANDS (British Colony)

L.T: GMT+12 h – **Pr.L:** English, Gilbertese, Ellice.
GILBERT AND ELLICE ISLANDS Broadcasting Service (Go.)
ADDR: Information Office, Tarawa – **Cable:** Information.
L.P: Dir: R. K. Uatioa. Dir. Tec: C. W. Adams.
STATIONS: VTW 844kc 355m 0.05kW – VTW2 6055kc 49.55m 2kW.
HOME SCE: Gilbertese and Ellice: Wed, Fri, Sun 04.30–06.00 (Vernacular), Thurs 07.30–10.30 (English) – **N: Gilbertese, Ellice:** Wed, Fri 05.30, Sun 04.00. **English:** Thurs 07.45. **Wrp:** with English N.
ANN: E: "Good evening (afternoon) listeners, this is the Voice of Tarawa". Gilbertese: "Kam na bane ni mauritani ka kauongo n te tairiki aio boni banan Tarawa". Ellice: Tolofa katoa ite afiafinei menei ko sikungaleo o Tarawa" – **INT-SIG:** Four notes gong – **V.** by formletter – **F.PL:** Morning prgr. 19.30–19.45.

HAWAII (U. S. State)

L.T: GMT÷10 h – **Pr.L:** English, Japanese, Filipino, Chinese, Okinawan.
PRIVATE STATIONS (Comm.): Abbrev: E=English, J=Japanese, F=Filipino, C=Chinese, O=Okinawan, S=Samoan, AI=All Island.

	Call	kc	kW	Network		Call	kc	kW	Network
1)	KMVI	550	1	NBC, AI	10)	KTRG	990	5	Indep.
2)	KGMB	590	5	CBS	11)	KHVH	1040	5	Kaiser
3)	KORL	650	10	Indep.	12)	KHAI	1090	5	Indep.
4)	KULA	690	10	Indep.	13)	KIPA	1110	1	AI
5)	KGU	760	10	NBC	14)	KLEI	1130	1	Indep.
6)	KIKI	830	0.25	Indep.	15)	KOHO	1170	1	Indep.
7)	KIMO	850	1	Kaiser	16)	KND1	1270	5	Indep.
8)	KAIM	870	5	Indep.	17)	KPOI	1380	5	Indep.
9)	KAHU	920	10	Indep.	18)	KTOH	1490	0.25	NBC
2)	KHBC	970	1	CBS	19)	KUMU	1500	1	Indep.

1) **Maui Publishing Co,** P.O. Box 374, Wailuku, Maui. **L.P:** Gen. Mgr: E. J. Crane. **D.Prgr:** 15.00–09.00 in E, J, F – 2) **Hawaiian Broadc. System,** P.O. Box 581, Honolulu 14. **L.P:** Gen. Mgr: J. L. Herold. **D.Prgr:** KGMB 15.30–10.00 in E, KHBC 15.30–10.00 in E. J.
3) **R. Hawaii, Inc,** 2424 Kalakaua, Honolulu 15. **L.P:** St. Mgr: D. Collins. **D.Prgr:** 24 h in E – 4) **KULA Broadc. Co,** P.O. Box 1479, Honolulu. **L.P:** Gen. Mgr: M. Hebdon. **D.Prgr:** 24 h in E.
5) **Advertiser Publishing Co,** P.O. Box 3110, Honolulu 2. **L.P:** Gen. Mgr: W. O. Paine. **D.Prgr:** 15.00(Sat 14.30)–11.00, Sun 15.00–10.00.
6) **KIKI Ltd,** 331 Kamani St, Honolulu 13. **L.P:** Gen. Mgr: A. J. Rossi. **D.Prgr:** 24 h in E, C, F, J, O – 7) **Island Broadc. Co,** P.O. Box 1497, Hilo. **L.P:** Gen. Mgr: J. E. Jaeger. **D.Prgr:** 15.00–10.00 in E, J, F.
8) **Christian Broadc. Assoc,** P.O. Box 375, Honolulu. **L.P:** Gen. Mgr: C. Keur. **D.Prgr:** 14.30–10.00 in E, F, C, J. **FM:** 95.5Mc, 37kW: 16.00–10.00 – 9) **Rural Broadc. Co,** P.O. Box 1007, Waipahu, Oahu. **L.P:** Gen. Mgr: H. E. Chu. **D.Prgr:** 15.00–09.30 in E, C, F, J, S.
10) **Ala Moana Broadc. Co,** 2227 Kalakaua Ave, Honolulu 14. **L.P:** Gen. Mgr: P. W. Carle. **D.Prgr:** 24 h in E, J, F.
11) **Kaiser Hawaiian Village R. Inc,** 1290 Ala Moana Blvd, Honolulu 14. **L.P:** Gen. Mgr: J. A. Serrao. **D.Prgr:** 24 h in E, V. by letter. Rp.
12) **Royal Broadc. Co, Inc,** 2259 Kalakaua Ave, Honolulu 15. **L.P:** Gen. Mgr: R. L. Bowen. **D.Prgr:** 24 h in E.
13) **Big Island Broadc. Co,** P.O. Box 1602, Hilo. **L.P:** Gen. Mgr: R. W. Jaderstrom. **D.Prgr:** 15.00–10.00 in E, J, F – 14) **Oahu Broadc. Co,** Kailua, Oahu. **L.P:** Gen. Mgr: J. Irvin. **D.Prgr:** 15.59–10.00 in E.
15) **Cosmopolitan Broadc. Co,** 1140 A, 12th Ave, Honolulu 16. **L.P:** Dir. Gen: H. Sato. **D.Prgr:** 14.00–09.00 in E, J, F. V. by QSL-card. Rp.
16) **R. St. KNDI,** P.O. Box 1516, Honolulu. **L.P:** Gen. Mgr: J. T. Ownby. **D.Prgr:** 16.00–10.00 (Sun 16.00–09.00) in E. **Korean Sat. German Sun** – 17) **KPOI Broadc. Co,** 1701 Ala Wai Blvd, Honolulu 15. **L.P:** Gen. Mgr: F. Hollinger. **D.Prgr:** 24 h in E. **FM:** 97.5Mc, 50kW: 14.00(Sat/Sun 13.00)–09.00(Sat 10.00) – 18) **Garden Island Publishing Co,** Box 1748 Lihue, Kauai – **L.P:** Gen. Mgr: C. J. Fern. **D.Prgr:** 15.30–08.30 in E, J, F – 19) **John Hutton Corp,** 1148 – 12th Ave, Honolulu 16. **L.P:** Gen. Mgr: J. Weiser Jr. **D.Prgr:** 24 h in E.
Planned St: Mauna Loa Broadc. Co, Kealakekua (KEKO 790kc)

MARIANAS ISLANDS (U.S. Territory)

L.T: GMT+10 h – **Pr.L:** English, Chamorro, Philippine dialects.
RADIO GUAM (Pr. Comm.)
FI: By adv – **ADDR:** P.O. Box 368 Agana, Guam. **Cable:** Kuam. **Te:** 7961 – **L.P:** Pres: P. Berg, Resident Mgr: R. A. Jordan.
STATION: KUAM 610kc 1kW – **HOME SCE. in English:** 20.00(Sun 21.00)–14.00(Sat 15.00) – **N:** Every h on the h.
ANN: "Kuam Agana, Guam" – **INT-SIG:** Voice & Jingle Form (Orchestra & Voices) – **V.** by letter and QSL-card – **PUB:** Prgr. schedule free. Write to: Resident Mgr. P.O. Box 368 Agana. Guam, M.I.
ARMED FORCES RADIO & TV SERVICE: see USA.

MARSHALL ISLANDS (U.S. Trust Terr.)

L.T: GMT+12 h – L: English.
ARMED FORCES RADIO & TV SCE. (Eniwetok and Kwajalein): see USA.

NEW CALEDONIA (French)

L.T: GMT+11 h – **Pr.L:** French.
RADIO NOUMEA (Go. – R. diff. Télévision Française)
AD: 19.00–20.00, 00.00–01.00, 01.15–01.20, 07.45–08.00.
ADDR: B.P. 327, Noumea. **Cable:** Radio Noumea. **Te:** 2856 – **L.P:** Dr. Le Leizour. Dir. Tec: Th. Siret.
STATIONS (System TRT).
1400kc 214m 8kW – 3355kc 89.45m 4kW – 7170kc 41.48m 4kW.
HOME SCE. in French, Bichelamar (Pidgin), Wallisian: W 19.00–20.15, 00.00–02.00, 07.00–10.30. Sun 21.00–02.00, 07.00–10.30.
N. in French: 19.30, 19.55, 01.00, 08.00, 10.25 – **Wrp:** D 19.30, 00.00, 01.00, 01.55, 08.00, 10.25 – **L.L: English:** Mo, Wed 07.00, Sat 07.15 – **For New Hebrides:** Thurs 07.00–07.30. **Wallisian** (for Wallis and Futuna Isl.) Fri 07.00–07.15.
ANN: "Ici Noumeá, Radiodiffusion Télévision Française" – **INT-SIG:** Call of the cagou bird – **V.** by QSL-card. Rp. Records accepted.

NEW HEBRIDES

L.T: GMT+11 h – **Pr.L:** English, French, Pidgin-English.
RADIO PORT VILA (Go.)
ADDR: Anglo-French Condominium Administration, Port Vila, New Hebrides, So. Pacific – **L.P:** Eng. in Chief: R. A. Robinson.
STATION: 3277kc 91.55m 1kW.
The st. is off air at present except for special tests at indefinite times. Refer all communications regarding English prgr's to Inf. Officer British Residency, Vila, and regarding French prgr's to "Bureau d'Information, Residence de France, Port Vila.

NEW ZEALAND

L.T: GMT+12 h – Pr.L: English, Maori.

NEW ZEALAND BROADCASTING CORPORATION (Statutory Public Body).

FI: By license payments and adv – AD: St's other than YA, YC and YZ St's broadc. adv. on W.

ADDR: P.O. Box 98, Wellington. Cable: Broadserv. Te: 70-999. L.P: Dir. Gen: G. H. Stringer. Dir. of Engineering: W. L. Harrison, Dir. Sound Broadc: L. R. Sceats. Dir. TV: N. R. Palmer.

HOME SERVICE in English: * Private st. ** exc. Sun 11.30–17.00

	Call	kc	m	kW	h of tr.
Wellington	2YA	570	526	100	24 h**
Christchurch	3YD	630	476	2	21.00–10.00
Alexandra	4YX	640	468	2	18.00–11.20
Wellington	2YC	660	455	60	05.00–11.00
Christchurch	3YA	690	434	20	18.00–11.20
Invercargill	4YZ	720	416	5	19.00–11.20
Auckland	1YA	760	395	20	18.00–11.20
Dunedin	4YA	780	384	20	18.00–11.20
Rotorua	1YZ	800	375	10	19.00–10.30
Invercargill	4ZA	820	366	10	18.00–12.00
Masterton	2XB	840	357	2	18.00–03.35
					05.30–10.30
Napier	2YZ	860	349	5	19.00–10.30
Auckland	1YC	880	341	10	05.00–11.00
Dunedin	4YC	900	333	10	05.00–11.00
Greymouth	3YZ	920	326	10	18.00–10.30
Palmerston Nth.	2ZA	940	319	2	18.00–12.00
Christchurch	3YC	960	312	10	05.00–11.00
Whangarei	1XN	970	309	2	18.00–11.00
Wellington	2ZB	980	306	20	18.00–12.00
Tauranga	1ZD	1000	300	10	18.00–23.00
					05.30–10.30
Gisborne	2XG	1010	297	2	18.00–11.00
Dunedin	4ZB	1040	288	10	18.00–12.00
Auckland	1ZB	1070	280	10	18.00–12.00
Christchurch	3ZB	1100	273	10	18.00–12.00
Wellington	2YD	1130	265	2	21.00–10.00
Hamilton	1YW	1140	262	2	18.00–11.20
Timaru	3XC	1160	258	2	18.00–11.00
Gisbourne	2YW	1180	255	02	07.00–10.30
Wanganui	2XA	1200	250	2	18.00–11.00
Kaikohe	1XE	1220	245	2	18.00–11.00
Auckland	1YD	1250	240	2	21.00–10.00
Napier	2ZC	1280	234	2	18.00–12.00
Hamilton	1XH	1310	229	2	18.00–12.00
Nelson	2XN	1340	224	2	18.00–11.00
Rotorua	1ZC	1350	222	2.5	18.00–02.00
					05.30–10.30
New Plymouth	2XP	1370	219	2	18.00–11.00
Wellington°	2YX	1400	214	2	07.30–11.00
Dunedin	4XD	1430	210	0.25**	
Kaitaia	1XA	1440	208	2	18.00–11.00
Westport	3YW	1460	205	2	18.00–10.30

° Only on the air when Parliament is being broadc. by 2YA. ** Wed, Thurs 06.00–10.45. Sat 08.30–10.00. Sun 21.30–00.30.

N: 16.00(BBC)[1], 18.00(BBC)[2], 18.15[3], 18.30[2], 18.45(W)[3], 19.00[4], 19.15[3], 19.30[4], 19.45[3], 20.00(BBC)[4], 20.15[3], 20.30[4], 20.45[3], 21.00[4], 21.15(Sun)[3], 22.31(W)[6], 00.15[6], 00.30[4], 01.15[4], 01.30[6], 03.31(W)[6], 06.00(BBC)[4], 06.15[3], 07.00(W)[4], 09.00[7], 09.30[8], 11.00(BBC)[9], 11.30[10].

1) 2YA only – 2) YAs, 3YZ, 1YW – 3) ZBs, 1ZD, ZAs, ZCs, 1XH, 1XN, 2XG, 2XP, 2XA, 2XB, 2XN, 3XC – 4) YAs, YZs, 1YW – 5) All st's exc. YDs – 6) ZBs, ZAs, 2ZC, 1XH, 2XB, 1XN, 2XG, 2XP, 2XA, 2XN, 3XC – 7) YAs, YZs, 1YW, 1XN, 2XG, 2XP, 2XA, 2XN, 3XC – 8) ZBs, ZCs, ZAs, 1XH, 1ZD, 2XB – 9) YAs, 4YZ, 1YW – 10) ZBs, ZAs, 1XH, 2ZC.

N. in Maori: Sun 05.45 – Wrp: D 19.15, 00.30, 09.00 – Rlg: W 22.00. Sun 23.00, 07.00 – L.L: French: Mo 02.45 (Feb-Aug) – Quiz Prgr's: 07.00 (Mo, Fri), 08.00 (W exc. Fri), 08.00 (Sat).

FOREIGN SCE: R. New Zealand.

ADDR: Dir. Gen: R. New Zealand, P.O. Box 2396, Wellington. Cable: Broadserv. Te: 70-999 – L.P: Distr. Mgr: J. L. Hartstonge. Dir. Tec: A. S. Chisholm. Prgr. Officer: H. W. Taylor-Smith.

STATIONS: 7.5kW.

Call	kc	m	Call	kc	m	Call	kc	m
ZL20	6020	49.83	ZL2	9540	31.45	ZL21	15110	19.85
ZL7	6080	49.34	ZL3	11780	25.47	ZL4	15280	19.63

Two freq's are used simultaneously, and as the prgr. sched. is intended primarily for Australia and the Pacific Islands, the present aerials are beamed in those two directions. HS=Home Sce. prgr's.

To Pacific Islands: 17.00–19.45 HS on 9540,11780kc; 20.00–05.45HS on 15280kc; 06.00–08.45 Special prgr. on 9540, 11780 kc.

To Australia: 20.00–22.30 HS on 11780kc; 22.45–05.45 HS on 15110kc; 09.00–11.45 Special prgr. on 9540, 11780kc.

"Calling Antarctica" (a prgr. of N, sporting review, "Family Corner" directed to N.Z. scientific personnel in the Ross Dependency): Sun 08.15–08.45 on 6020kc – "Calling Samoa" (in Samoan): Tues 07.00–07.15 – "Calling The Cook Islands and Niue" (in Rarotongan): Wed 07.45–08.00, Sat 08.00–08.15 (repeat).

New Zealand News: D 00.45, 07.00, 10.00.

Rlg: W (in N.Z.) 22.00. Sun (in N.Z.) 23.00 – DX Prgr. ("This Radio Age") 1st Wed in month: 06.40, 10.30. Also Sun following the 1st Wed at 00.40 – "Looking at Ourselves": Mo 07.00, 11.15 – "Lookout": Sat 09.12. Sun 06.30 – "Point of View": Sun 09.12, Mo 08.18 – "Mailbox": Fri 07.00, 09.45 – Maori Music: Thurs 06.45, 11.00. Fri 08.15, 09.00 – "This is N.Z." Sun 07.45, 10.30. Tues 08.15, 09.30 – Prgr. Previews: 21.30, 00.50, 06.10, 07.40, 08.40, 08.57, 10.10, 11.40. ANN: "This is R. New Zealand" – INT-SIG: Call of the N.Z. Bell bird (at 5 second intervals) – V. by QSL-card (sea mail) Re. to Distr. Mgr. P.O. Box 2396, Wellington – PUB: "The N.Z. Listener" (Home Sce) 39 sh. (N.Z.) yearly. R.N.Z. Prgr. sched. (free to overseas listeners).

NORFOLK ISLANDS (Austral. Terr.)

L.T: GMT+11½ h – Pr.L: English.

NORFOLK ISLAND BROADCASTING SERVICE (Go.)

ADDR: Dept. of Civil Aviation, Norfolk Island – L.P: Officer in charge: R. M. Pierce.

STATION: VL2NI 1570kc 0.05kW – HOME SCE. in English: 21.00–22.00. N: 21.00, 21.45. ANN: "Norfolk Island Broadc. Service, st. VL2NI" – V. by letter. Rp.

PAPUA AND NEW GUINEA

(Australian Territory & Australian Trust Territory of New Guinea).

L.T: GMT+10 h – Pr.L: English, Pidgin, Tolai.

RADIO RABAUL (Go.)

ADDR: Adm. Broadc. St, P.O. Box 71, Rabaul. Cable: Adcast. Te: 2700 – L.P: St. Mgr: H. H. Leigh. S. Dir. Tec: W. Murphy.

STATION: VL9BR 4840kc 61.98m 0.25kW.

HOME SCE: 07.00–12.30(Fri, Sat 13.00) – N: English: 08.00, 09.00. Tolai: 08.10, 10.00. Pidgin: 08.05, 10.30, 11.30, 12.00 – Wrp. & Shipping Inf. (in Pidgin), 08.45.

ANN: E: "This is R. Rabaul, Station VL9BR" – Tolai: "Ava vala-vala-Ongore R. Rabaul VL9BR" – Pidgin: "Yupela wok lang harim R. Rabaul VL9BR, Stesin Bilong Yumi" – V. by letter. Records accepted.

RADIO WEWAK (Go.)

ADDR: P.O. Box 65, Wewak. Te: 98 – L.P: St. Mgr: R. W. Wilson.

STATION: VL9CD 3335kc 89.95m 0.25kW.

HOME SCE. in English & Melanesian Pidgin: 07.30–10.00.

N. in English: 08.00(Mo, Fri), 08.53(Mo-Fri), 09.00(W).

ANN: "Adm. Broadc. St. R. Wewak" – V. by letter. Records accepted.

F.PL: 10kW (Dec. 64).

SAMOA (American)

L.T: GMT – 11 h – Pr.L: Samoan, English.

R. STATION WVUV (Go.)

ADDR: Office of Samoan Information, P.O. Box 453, Pago Pago. Te: 648 – L.P: St. Dir: P. M. Tuiasosopo. Dir. Tec: C. Brown.

STATION: WVUV 1120kc 267.8m 0.05kW.

HOME SCE: D 18.00–24.00, 05.00–08.00. N. English: Mo-Fri. 18.30, Tues-Sat 05.45, Sat 22.00, 23.00, 24.00. Samoan: Mo-Fri 19.45, 06.30, 07.30 – Samoan Music: D 06.30.

ANN: E: "This is Station WVUV, Pago Pago, American Samoa" – V. by letter. Records accepted – PUB: "News of the Day (daily), "Failanga Samoa" (weekly) – F.PL: Power 10kW.

SAMOA (Western)

L.T.: GMT+11 h – Pr.L.: Samoan, English.

BROADCASTING STATION 2AP (Go.)

AD.: W: 17.00–19.00, 05.00–09.00 mainly spots in English, Samoan.

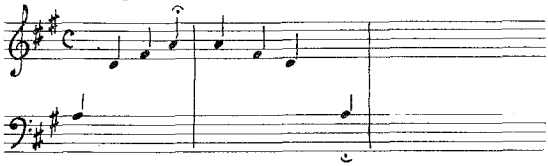
ADDR.: Broadc. Dept., P.O. Box 200, Apia. Cable: Voxpac. Te.: 2 – L.P: Dir: J. W. Hoore. Prgr. Supervisor: L. Levi. Technician-in-charge: J. K. Brown.

STATION: 2AP Apia 1420kc 211.3m 10kW.

HOME SCE: English/Samoan: W: 17.00–20.00, 05.00–09.00. Sun: 20.00–23.00, 05.00–09.00. English: W 05.00–06.30. Samoan: W 06.30–09.00 – N: English: W: 18.00, 06.00. Samoan: 07.30 – Home N: (Samoan) Tues, Sat 08.15.

NORTH AMERICA
GREENLAND
1:40 Mill.
KM
0
500
1000
2000
Arctic Ocean
Baffin Bay
Davis Strait
Denmark Strait
Hudson Bay
GREENLAND
THULE
UPERNAVIK
ANGMAGSSALIK
GODHAVN
KOOK
GODTHÅB
FREDERIKSHÅB
Baffin Isl.
KOVIK
Labrador
SCHEFFERVILLE
GOOSE BAY
Quebec
ALASKA
INUVIK
FAIRBANKS
ANCHORAGE
DAWSON
CORDOVA
Yukon
WHITEHORSE
North West Territories
YELLOW-KNIFE
HAY RIVER
NELSON
FORT SMITH
CHURCHILL
British Columbia
Alberta
CANADA
Saskatchewan
Manitoba
EDMONTON
PRINCE ALBERT
SASKATOON
KAMLOOPS
VANCOUVER
KELOWNA
CALGARY
WATROUS
REGINA
VICTORIA
SEATTLE
MEDICINE HAT
LETHBRIDGE
BRANDON
WINNIPEG
Ontario
PORT ARTHUR
FORT WILLIAM
SUDBURY
TIMMINS
CHICOUTIMI
QUEBEC
TROIS RIVIERES
VERCHERES
MONTREAL
OTTAWA
TORONTO
Michigan
DETROIT
LONDON
BUFFALO
Pennsylvania
PITTSB
Ohio
WINDSOR
CHICAGO
Illinois
Indiana
INDIANAPOLIS
CINCINNATI
Virginia
WASHINGTON
Maryland
RICHMOND
Delaware
PHILADELPHIA
NEW YORK
BOUND BROOK
New York
Massachusetts
BOSTON
SCHENECTADY
Connecticut
Maine
SAINT JOHN
HALIFAX
SYDNEY
SACKVILLE
MONCTON
WOODSTOCK
DRUMMONDVILLE
GRAND FALLS
GANDER
ST. JOHN'S
ST. PIERRE
New Foundland
Washington
SPOKANE
PORTLAND
Montana
N. Dakota
Minnesota
ST. PAUL
MINNEAPOLIS
Wisconsin
Oregon
Idaho
S. Dakota
Wyoming
WATERLOO
Iowa
Nebraska
DESMOINES
OMAHA
SALT LAKE CITY
Utah
DENVER
Nevada
SACRAMENTO
DIXON
SAN FRANCISCO
California
FRESNO
DELANO
HOLLYWOOD
LOS ANGELES
TIJUANA
MEXICALI
ENSENADA
Arizona
ALBUQUERQUE
New Mexico
UNITED STATES
K. CITY
Colorado
LAWRENCE
Kansas
TULSA
Oklahoma
OKLAHOMA CITY
ST. LOUIS
Missouri
Arkansas
LITTLE ROCK
Mississippi
LOUISVILLE
Kentucky
NASHVILLE
Tennessee
MEMPHIS
N. Carolina
CHARLOTTE
S. Carolina
ATLANTA
BIRMINGHAM
Alabama
Georgia
Florida
JACKSONVILLE
NASSAU
Bahama Islands
HOLLYWOOD
MIAMI
DALLAS
SHREVEP.
FORT WORTH
Texas
Louisianna
NEW ORLEANS
HOUSTON
CORPUS CHRISTI
CIUDAD JUAREZ
SAN ANTONIO
HERMOSILLO
CHIHUAHUA
CIUDAD OBREGON
PIEDRAS NEGRAS
CIUDAD ACUÑA
NUEVO LAREDO
SABINAS
TORREON
REYNOSA
RIO BRAVO
CULIACAN
MONTERREY
SALTILLO
LA PAZ
ROSARIO
ZACATECAS
MEXICO
TAMPICO
S. LUIS POTOSI
GUADALAJARA
LEON
IRAPUATO
MEXICO CITY
ZAMORA
MORELIA
URUAPAN
JALAPA
VERA CRUZ
PUEBLA
ORIZABA
VILLA HERMOSA
TUXTLA GTREZ
OAXACA
ZITACUARO
ACAPULCO
GUATEMALA CITY
SAN SALVADOR
MERIDA
GULF OF MEXICO
CUBA
HABANA
PETIONVILLE
HAITI
KINGSTON
JAMAICA
PUERTO RICO
DOMINICAN REP.
CIUDAD TRUJILLO
SAN CRISTOBAL
SANTIAGO DE CUBA
GUANTANAMO
CAPE HAITIEN
PORT AU PRINCE
BELIZE
BR. HONDURAS
CENTRAL AMERICA
CARIBBEAN SEA
MANAGUA
SAN JOSE
PANAMA
MARACAIBO
MERIDA
VENEZUELA
COLUMBIA
MEDELLIN
PACIFIC OCEAN
NORTH ATLANTIC OCEAN
70°
60°
50°
40°
30°
20°
10°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°

ANN: E: "2AP, Apia, The Samoa Broadc. Service". Samoan: "Ole Sinfofoga Lenei o Samoa i Sisifo, Ole 2 AP i Apia". (The Voice of Western Samoa, 2AP Apia) – V. by QSL-card. Records accepted. Rp.
INT-SIG: Gong – F.PL: Lunch broadc. 22.30–01.30.



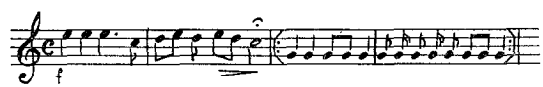
SOLOMON ISLANDS (British)

L.T: GMT+11 h – Pr.L: English, Pidgin-English, Vernaculars.
SOLOMON ISLANDS BROADCASTING SERVICE (Go.)
FI: By Go, license payments, adv – AD: Mo-Fri 07.30, 08.00 (exc. Thurs), 08.22, 09.00(W), 09.38(W), 10.00(Sat only) – ADDR: P.O. Box 115, Honiara. Cable: Broadcasts. Te: 425 – L.P: Broadc. Officer: R. F. Calvert.
STATIONS: VQO 1030kc 291m 0.66kW – VQO2 5960kc 50.34m 5kW.
HOME SCE: Mo-Fri 07.30–11.10, Sat 08.59–11.15, Sun 08.59–11.20.
The Marconi Company Ltd, G.B: One 660W mw-tr.
N. in English: 07.45(Mo-Fri), 09.15(BBC), 09.30(W), 11.00(ABC), 11.10(Sat) – Pidgin English: Mo-Fri 08.00–08.59. N: 08.15 – Roviana: Tues 08.30.
ANN: "This is the S.I.B.S. mw VQO and sw. VQO2 transmitting"
INT-SIG: Gong – V. by QSL-card. Re. must contain details to establish authenticity. Records accepted – PUB: Prgr. sched. free.
F.PL: 5960kc to be replaced by 4770kc.

TAHITI (French)

L.T: GMT+10 h – Pr.L: French, Tahitian, Maori.
RADIO TAHITI (Go.)
AD: D 21.45–22.00, 03.45–04.00 – ADDR: Rue Dumont d'Urville 410, Papeete. Cable: R. Tahiti. Te: 243 – L.P: Dir: M. Espinasse. Dir. Tec: W. Copie, Y. Roche.
STATIONS: 1400kc 4kW – 6135kc 48.90m 4kW – 11825kc 25.37m 4kW.
HOME SCE: W 16.15–17.15, 21.30–23.00, 03.30–07.30. Sun 20.00–23.00, 03.03–08.00.
French: 16.15–17.15, 21.45–23.00(W), 05.00–07.30(Sun 08.00). N: 22.15, 05.30 – Tahitian: 21.30–21.45(W), 03.50–05.00. N: 21.30(W), 04.00 – Bilingual: Sun 20.00–23.00.
Although times are GMT, calendar days apply to Tahiti only.
ANN: F: "Ici Tahiti, Radiodiff.-Télévision Française" Maori: "O Radio Tahiti Teie Te Reo O Farani I Patitifa" – INT-SIG: Tahitian flute (vivo) and drums.

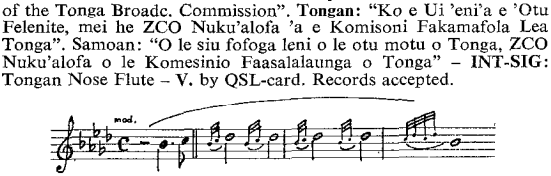
Flute: Drums:



V. by QSL-card. Records accepted – PUB: Prgr. sched. free.

TONGA (Kingdom of)

L.T: GMT+13 h – Pr.L: Tongan, English.
TONGA BROADCASTING COMMISION (Go.)
FI: By Go. assisted by revenue from adv – AD: In Tongan morning and evening; English and Samoan in overseas prgr: Samoan spots also in Samoan prgr's – ADDR: P.O. Box 36, Nuku'alofa. Cable: Broadcom. Te: 105 – L.P: Mgr: R. G. Hagget. Senior Technician: M. Holmes-Libbis.
STATION: ZCO 1020kc 10kW.
HOME SCE. in Tongan, English: 18.00–20.15, 05.30–10.00 (Tongan, English, Samoan) – N: Tongan 19.00, 06.15, English 18.00 (BBC), 07.00 – Wrp: (for Tonga, Niue, Samoa, Fiji): At end of N. and 19.15 – Samoan: Wed, Thurs 09.00–09.30. Tongan Music: D 18.30, 19.30, 06.00, 06.30 – Overseas Musical Prgr: D 07.00–10.00 – Pacific Requests: Mo 07.30–09.30 (Samoan, Fijian, Tongan, English).
ANN: E: "This is the Call of the Friendly Islands "ZCO Nuku'alofa of the Tonga Broadc. Commission". Tongan: "Ko e Ui 'eni'a e 'Otu Felenite, mei he ZCO Nuku'alofa 'a e Komisoni Fakamafola Lea Tonga". Samoan: "O le siu fofoga leni o le otu motu o Tonga, ZCO Nuku'alofa o le Komesinio Faasalalaunga o Tonga" – INT-SIG: Tongan Nose Flute – V. by QSL-card. Records accepted.



NORTH AMERICA

BERMUDA (British)

L.T: GMT+4 h – Pr.L: English.
BERMUDA BROADCASTING CO. LTD. (Comm.)
FI: By adv – ADDR: Box 452, Hamilton. Cable: ZBM Bermuda. Te: 2-1122 – L.P: Man. Dir: W. Staskow. Mgr: G. Robinson. Dir. Tec: J. H. Spershott.
STATIONS 1kW:
ZBM1 1235kc – ZBM2 1340kc – FM: 89.1Mc
HOME SCE. in English: On 1235kc: 24 h. On 1340kc: W 11.00–03.00. Sun 13.00–03.00. FM: W 11.00–04.00. Sun 13.00–03.00.
N, Wrp: D: 10.55, 11.45, 13.00, 15.00, 16.45, 18.00, 19.00, 20.00, 21.00, 22.00, 23.00, 01.00, 02.05, 03.30, 04.00, 04.30, 05.00 – T.S: every $^1/_4$ h – Portuguese: D 09.45–10.15 on 1235kc – ANN: "This is ZBM R. Bermuda" – V. by QSL-card. Rp. Records accepted.

CAPITAL BROADCASTING CO. LTD. (Comm.)
FI: By adv – ADDR: Berley Rd, Bermuda – L.P: St. Mgr: M. Sheppard – STATION: ZFB1 960kc 1kW – HOME SCE. in English: 24 h – V. by letter.

CANADA

L.T: See table: World Time – Pr.L: English, French.
Abbreviations: Nf=Newfoundland, NS=Nova Scotia, PEI=Prince Edward Isl. NB=N. Brunswick, P=Pacific, Qu=Quebec, O=Ontario, M=Manitoba, Sa=Saskatchewan, Al=Alberta, BC=British Columbia, W=Winnipeg, Pr=Province, Prince R=Prince Rupert, NWT=No. W. Territories.

CANADIAN BROADCASTING CORPORATION INTERNATIONAL SERVICE (Publicly-owned)
ADDR: Canadian Broadcasting Corporation, International Service, P.O. Box 6000, Montreal. Cable: Intrad.
L.P: Dir: C. R. Delafield. Supervisor of Sections: A. L. Pidgeon. Supervisor of Eng. Sce: S. B. Duke. Supervisor of Inf. Sce: H. Shane. Coordinator of Transcription Services: G. Poupart. Head Eng. Sce: P. A. Tallman; Head French Sce: J. M. Marcotte; Head Latin American Sce: P. Marcos Bilbao. Supervisor of TV Prod: G. Delanoe.
STATIONS: All international sw. broadcasts from Canada are directed by CBC International Service, which is owned by the people of Canada. All prgr's are sent by landline from Montreal to Sackville, New Brunswick, on Canada's Atlantic coast, whence they are transmitted by three 50kW tr's.
STATIONS:

kc	m	kc	m	kc	m	kc	m
5970	50.25	9585	31.30	11720	25.60	15320	19.58
5990	50.08	9625	31.17	11760	25.51	17820	16.84
6120	49.02	9630	31.15	15190	19.75		

SCHEDULE (Nov. 63–Feb. 64)
EUROPEAN SERVICE 11.25–18.30 and 20.00–21.35:
11.25–11.45 on 11720/15320/17820kc, 11.45–12.00 on 15320/17820kc, 12.00–12.30* on 15320/17820kc, 12.30*–15.30 on 11720/15320/17820 kc, 15.30–15.45 on 15320/17820kc, 15.45–17.00 on 11720/15320/17820kc, 17.00–17.15 on 15320/17820kc, 17.15–18.30 on 9630/11720/15320kc, 20.00–21.35 on 5970/9630/11720kc. * Sun 13.15.

Time	Prgr.	
11.25–12.00	Czech	Daily
12.00–13.15	Forces Relay	Sun only
12.00–12.30	Forces Relay	Mo–Sat
12.30–13.00	Prgr's for Europe	Mo–Sat
13.00–13.15	Prgr's for Europe	Sat
13.00–13.15	Polish	Mo–Fri
13.15–13.30	Polish	Sat, Sun
13.30–14.00	Musical Prgr.	D
14.00–14.30	Ukrainian	–
14.30–15.30	Russian	–
15.30–15.45	News in English (15.30) & French (15.37)	
15.45–16.00	Hungarian	D
16.00–16.15	Slovak	–
16.15–17.00	Czech	–
17.00–17.15	News in English (to ships in No. Atlantic)	
17.15–18.00	Polish	D
18.00–18.30	German	–
20.00–20.45	French	N: 20.01
20.45–21.35	English	N: 20.45

AFRICAN SERVICE:
18.30–19.45 on 9630/11720/15320kc, 19.45–20.00 on 9630/11720kc.

18.30–19.15	English	N: 18.32
19.15–20.00	French	N: 19.15

NORTHERN CANADA SERVICE (East, Central, West):

12.00–12.30*	on 5970kc	(Forces Relay)
15.30–15.45	on 11720kc	(N. in English & French)
17.00–17.15	on 11720kc	(N. in English)
21.55–22.46	on 5970/9585/11720kc	(English & French)

* Sun 13.15.

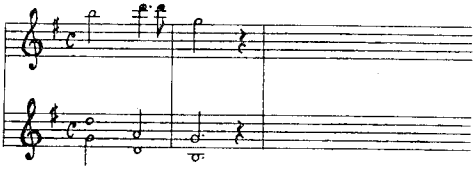
CARIBBEAN & LATIN AMERICAN SERVICE:

22.58–00.46	on 5970/9625/11720kc	
23.00–23.30	English	N: 23.01
23.30–24.00	Portuguese	N: 23.30
00.00–00.45	Spanish	N: 00.00

NORTHERN CANADA SERVICE (East, Central, West):

00.58–02.30	on 5970/9585/11720kc	(English)
02.30–07.05	on 5970/9585kc	(English)

AUSTRALASIAN SERVICE:
07.15–08.00 on 5970/9625kc, 08.00–08.50 on 5970/9630kc. **N:** 08.30. **DX Prgr: In English:** Every Sat during the regular English prgr. to Europe, Africa, Caribbean area, Austral asia. **In German:** Every Sun – **ANN:** E: "This is the International Sce. of the Canadian Broadcasting Corporation". F: "Ici Radio Canada". G: "This is Canada". **INTSIG:** First four notes of National Song "O Canada" (piano):



MESSAGE TO LISTENERS: The CBC International Service greets shortwave listeners everywhere, and welcomes reports, queries, and comments on reception and programs. Please write to: Box 6000, Montreal – V. by letter or QSL-card – **PUB:** CBC-Radio-Canada prgr.sched. published four times a year and sent free upon request. **F PL:** Expansion of the Sackville, NB, short wave plant.

CBC NATIONAL SERVICE (Publicly-owned).
ADDR: Head Office: 1500 Bronson Ave. Ottawa – **International Service:** Radio-Canada Bldg, 1425 Dorchester Str. W, Montreal. **French Networks Division:** Radio-Canada Bldg, 1425 Dorchester Str. W, Montreal – **English Networks Division:** 354 Jarvis Str. Toronto – **Newfoundland Reg:** T. A. Bldg, St. John's – **Maritime Reg:** United Services Bldg, 100 Sackville Str, Halifax – **Prairie Reg:** 541 Portage Avenue, Winnipeg – **British Columbia Reg:** 701 Hornby Str, Vancouver – **Ottawa Area:** Lanark Ave, Ottawa - **Northern and Armed Forces Services:** 1500 Bronson Ave, Ottawa – **Engineering Headquarters:** 7925 Cote St. Inc Road, Montreal – **Offices outside Canada:** CBC Representative New York, United Nations, New York. N.Y, USA; CBC Representative in London, The Langham, Portland Place, London W. 1, England; CBC Representative in Paris, 17 Ave. Matignon, Paris 8, France. **L.P:** Pres: J. A. Ouimet, Vice Pres: Capt. W. E. S. Briggs. Vice Pres. Programming: E. S. Hallman. Comptroller: V. F. Davies. Vice Pres. Personel & Operations: J. P. Gilmore: Vice Pres. Corporate Affairs: R. C. Fraser. Gen. Mgr. Reg. Broadc: C. Jennings. Gen. Mgr. English Networks: H. G. Walker. Gen. Mgr. French Networks: M. Ouimet. Dir. Eng. and Tech. Services: W. G. Richardson. **CBC Representatives:** Paris: J. Saint-Georges. London: S. Moore. New York, United Nations: J. T. Craine.

CBC-STATIONS

Call	kc	kW	Call	kc	kW	Call	kc	kW
1) CBI	1140	10	9) CBK	540	50	17) CBT	540	10
2) CBH	860	10	10) CBX	1010	50	18) CBY	990	10
3) CBA	1070	50	11) CBXA	740	0.25	19) CFYK	1340	0.25
4) CBM	940	50	12) CBU	690	10	20) CFWH	570	1
5) CBO	910	5	13) CFPR	1240	0.25	21) CHFC	1230	0.25
6) CBL	740	50	14) CFGB	1340	1	22) CFFB	1200	0.04
7) CBE	1550	10	15) CBN	640	10	23) CHAK	860	1
8) CBW	990	50	16) CBG	1450	0.25	24) CJBC	860	50

Continental Electronics, USA: 10kW tr. (Halifax).

1) P.O. Box 700, Sydney, NS – 2) P.O. Box 175, Halifax, NS – 3) P.O. Box 130, Sackville, NS – 4) P.O. Box 6000, Montreal, Qu – 5) P.O. Box 3220, Ottawa, O – 6) P.O. Box 500, Toronto, O – 7) Security Bldg, University & Pelissier – 8) P.O. Box 160, Winnipeg, M – 9) P.O. Box 347, Regina, Sa – 10) P.O. Box 555, Edmonton, Al – 11) P.O. Box 555, Edmonton, Al – 12) 701 Hornby Str. Vancouver, BC – 13) 343 W. 2nd Ave. Prince Rupert, BC – 14) P.O. Box 237, Goose Bay, Lab – 15) P.O. Box 5490, St. John's, Nf – 16) Station CBG, Gander, Nf – 17) Station CBT, Grand Falls, Nf – 18) P.O. Box 610, Corner Brook, Nf – 19) Hornby Electric Bldg. Yellowknife, NWT – 20) P.O. Box 730, Whitehorse, YT – 21) Fort Churchill, M – 22) P.O. Box 237, Frobisher Bay, NWT – 23) P.O. Box 1220, Inuvik, NWT – 24) P.O. Box 500, Terminal "A" Toronto, O. +100 low power relay st's not mentioned.

Short Waves:
15) CBNX 6160kc 48.70m 0.3kW 11.00–04.00 (Relay CBN).
12) CBUX 6160kc 48.70m 0.5kW 14.00(Sun 15.00)–08.05 (relay CBU).
Note: Although times are in GMT, calender days apply to Canada only. **ANN:** CBUX: "This is the Canadian Broadcasting Corporation CBU/CBUX, Vancouver" – **V:** CBNX/CBUX: by QSL-card unless extra inf. is requested, in which case letters of explanation are sent.

FRENCH NETWORK (Basic Stations)

Call	kc	kW	Call	kc	kW	Call	kc	kW	Call	kc	kW
1) CBAF	1300	5	2) CBV	980	5	3) CBF	690	50	4) CBJ	1580	10

1) 232 St. George Str. Moncton, NB – 2) Palais Montcalm, St. Jean Str, Quebec, Qu – 3) P.O. Box 6000, Montreal, Qu – 4) P.O. Box 790, Chicoutimi, Qu. +14 power stations not mentioned.
FM-STATIONS: CBF-FM Montreal 91.1Mc 3.86kW (French Netw). CBM-FM Montreal 100.7Mc 3.86kW. CBO-FM, Ottawa 103.3Mc 0.38kW. CBC-FM Toronto 99.1Mc 11.9kW. CBU-FM Vancouver 107.5Mc 1kW.
F.PL: 10kW tr 1480kc (Fredericton, NB), Vancouver – FM 100kW Feb 64 – 10kW 1250kc (French) at Ottawa Apr. 64 – 50kW Calgary 1010kc & Edmonton 740kc Aug. 64 – 10kW St. John, NB 1110kc Sept. 64 – 10kW Pr. Rupert 1240kc Nov. 64.

PRIVATELY OWNED COMMERCIAL STATIONS

CANADIAN ASSOCIATION OF RADIO AND TELEVISION BROADCASTERS: Head Office, 108 Sparks St, Ottawa 4.
Medium Waves: 97 stations less 5kW not mentioned. **FM:** 41 st's. °=Short Wave.

	Call	kc	kW		Call	kc	kW
1)	CFNB	550	50	59)	CKBB	950	10/2.5
2)	CHLN	550	10/5	60)	CKNB	950	10/1
3)	CJKL	560	5	61)	CFAC	960	10
4)	CKCN	560	5	62)	CHNS	°960	10
5)	CJEM	570	5/1	63)	CKWS	960	5
6)	CFRA	580	50/10	64)	CKCH	970	5
7)	CHLC	580	5/2.5	65)	CFPL	980	10/5
8)	CJFX	580	5	66)	CHEX	980	5
9)	CKEY	580	5/1	67)	CKGM	980	10
10)	CKPR	580	5/1	68)	CKNW	980	10/5
11)	CKUA	580	10	69)	CKRM	980	10/5
12)	CKY	580	50	70)	CKBW	1000	10
13)	VOCM	590	10	71)	CFRB	°1010	50
14)	CFCF	°600	5	72)	CFGP	1050	10
15)	CFCH	600	10/5	73)	CHUM	1050	5/2.5
16)	CFQC	600	2	74)	CJIC	1050	10/2.5
17)	CJOR	600	10	75)	CKSB	1050	10
18)	CHNC	610	5	76)	CFCN	°1060	10
19)	CKTB	610	10/5	77)	CJLR	1060	10
20)	CFCL	620	10/2.5	78)	CHOK	1070	5/1
21)	CKCK	620	5	79)	CHEC	1090	5
22)	CKCM	620	10	80)	CKWX	°1130	50
23)	CFCY	630	5	81)	CKXL	1140	10
24)	CHED	630	10	82)	CHSJ	1150	10/5
25)	CHLT	630	10/5	83)	CKOC	1150	5
26)	CKRC	630	5	84)	CKSA	1150	10
27)	CHFA	680	5	85)	CKTR	1150	10/1
28)	CJOB	680	10/2.5	86)	CKY	1150	10/1
29)	CKGB	680	10	87)	CJOC	1220	10/5
30)	CFRG	710	5	88)	CKDA	1220	10
31)	CKVM	710	10/1	89)	CKCW	1220	10
32)	CKAC	730	50	90)	CKBL	1250	5
33)	CKDM	730	10/5	91)	CKOM	1250	10
34)	CKLG	730	10	92)	CFRN	1260	50
35)	CFDR	790	5	93)	CHAT	1270	10
36)	CFCW	790	10	94)	CHWK	1270	10
37)	CKSO	790	10/5	95)	CJCB	°1270	10
38)	CHAB	800	10/5	96)	CHIQ	1280	5/2.5
39)	CHRC	800	10	97)	CJMS	1280	10/5
40)	CJAD	800	10	98)	CKCV	1280	10/5
41)	CJLX	800	10/5	99)	CFAM	1290	10/5
42)	CKOK	800	10/0.5	100)	CKSL	1290	5
43)	CKLW	800	50	101)	CFGM	1310	10/2.5
44)	CKRD	850	10/1	102)	CHGB	1310	5
45)	CKVL	850	50/10	103)	CKOY	1310	5/1
46)	CHML	900	5	104)	CHQM	1320	10
47)	CHNO	900	10/1	105)	CKEC	1320	5
48)	CJBR	900	10	106)	CKLB	1350	10/5
49)	CJVI	900	10	107)	CKBC	1360	10
50)	CKBI	900	10	108)	CKLC	1380	5
51)	CFJC	910	10/1	109)	CKPC	1380	10
52)	CJDV	910	5	110)	CJFP	1400	5/0.25
53)	CJCH	920	10/5	111)	CFMB	1410	10
54)	CKCY	920	10/5	112)	CFUN	1410	10
55)	CFBC	930	10/5	113)	CKFH	1430	10/5
56)	CJCA	930	10/5	114)	CJNB	1460	10
57)	CJON	930	10	115)	CJOY	1460	10/5
58)	CJGX	940	10/1	116)	CKRB	1460	10/5

Advertisement

RADIO-CANADA

Listeners are invited to write, and QSL cards are sent to those reporting correct information.

SHORTWAVE

Daily programs in eleven languages to Europe, Africa, Latin America, the Caribbean and Australasia, featuring news, DX programs and Listeners Corner.

TRANSCRIPTIONS

Music Transcriptions, and Spoken-Word Transcriptions in English, French, Spanish and Portuguese provided to Broadcasting organizations.

TELEVISION

"Canada Magazine," a monthly 15-minute program provided to TV organizations in English, French, German and Spanish, or with an international soundtrack.

CANADIAN BROADCASTING CORPORATION • P.O. Box 6000 • Montreal, Canada

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	Call	kc	kW		Call	kc	kW
117)	CFOX	1470	10/5	121)	CHUB	1570	10
118)	CKCR	1490	10/5	122)	CKLM	1570	10
119)	CHFI	1540	50	123)	CHVC	1600	10
120)	CFOR	1570	10				

Short Waves:

14) CFCX	6005	0.075	Canadian Marconi Co, Montreal
95) CJCX	6010	1	Cape Breton Broadcasters, Sydney
76) CFVP	6030	0.1	The Voice of the Prairies, Calgary
71) CFRX	6070	1	R. CFRB, Toronto
80) CFKX	6080	0.01	R. CKWX, Vancouver
62) CHNX	6130	0.5	Maritime Broadcasting Co, Halifax

Continental Electronics, USA: delivered. **M.W. tr's: 250W:** CKOT Tillsonburg, Ont – **1kW:** CFOS Owen Sound, Ont, CHOT Tillsonburg, Ont, CFCO Chatham, Ont – **3kW:** CJJC Vancouver, B.C, – **5kW:** CHLN 1 Three Rivers, Que, CHLN 2 Three Rivers, Que, CKBI Prince Albert, Sask – **5/10kW:** CKRC Winnipeg, Man, CKRM Regina, Sask, CKCK Regina, Sask, CJCA Edmonton, Alta, CJNB No. Battleford, Sask, CJAD 1 Montreal, Que, CJAD 2 Montreal, Que, CKSB St. Boniface, Man, CJOC Lethbridge, Alta, CKYW Winnipeg, Man, CKXL Calgary, Alta, CHED Edmonton, Alta, CKOC Hamilton, Que, CBH/CHNS Halifax, N.S, CKCR Kitchener, Ont – **50kW:** CKWX Vancouver, B.C.

Medium Waves:

1) **R. Atlantic Ltd,** 67 York St, Fredericton, NB.
2) **R. Trois Rivières Inc,** 522 rue Bonaventure, Trois-Rivières, Qu.
3) **Kirkland Lake Broadc. Ltd,** Woolworth Bldg, Governm. R.d West, Kirkland Lake, O – 4) **R. Sept-Iles Inc,** Sept-Iles, Qu – 5) **Edmundston R. Ltd,** 99 Canada Rd, Edmundston, NB.
6) **CFRA Broadc. Ltd,** 150 Isabella St, Ottawa, O.
7) **R. Cote-Nord Inc,** 15 Blvd. Blanche, Hauterive, Cte Saguenay, Qu. V. by letter. Records accepted.
8) **Atlantic Broadc. Ltd,** St. Ninian St, Antigonish, NS.
9) **Shoreacres Broadc. Co. Ltd,** 247 Davenport Rd, Toronto, O.
10) **H. F. Dougall Co. Ltd,** 87 No. Hill St, Port Arthur, O.
11) **University of Alberta,** 10526 Jasper Ave, Edmonton, Al.
12) **Moffat Broadc. Ltd,** 432 Main St. North, Winnipeg, M.
13) **Colonial Broadc. System Ltd,** McBride's Hill, St. John's, Nf.
14) **Canadian Marconi Co.** 4824 Cote des Neiges Rd, Montreal, Qu.
15) **Northern Broadc. Ltd,** 581 Fraser St, North Bay, O.
16) **A. A. Murphy & Sons Ltd,** 216 First Ave. North, Saskatoon, Sa.
17) **CJOR Ltd,** Hotel Grosvenor, 846 Howe St, Vancouver, BC.
18) **La Cie Gaspésienne de Radiodiff. Ltée,** Rue Principale et boul. Perron, New Carlisle, Qu.
19) **Niagara District Broadc. Co. Ltd,** 12 Yates St, St. Catharines, O. V. by QSL-card or by letter, as requested. Records accepted.
20) Timmins, O – 21) **Transcanada Communications Ltd,** 1853 Hamilton St, Regina, Sa – 22) **Colonial Broadc. System Ltd,** Grand Falls, Nf.
23) **The Island R. Broadc. Co. Ltd,** 85 Kent St, Charlottetown, PEI.
24) **R. Station CHED Ltd,** 10006 – 107th St, Edmonton, Al.
25) **La Tribune Inc,** 221 Dufferin St, Sherbrooke, Qu – 26) **Transcanada Communications Ltd,** Free Press Bldg, 300 Carlton St, Winnipeg, M.
27) **R. Edmonton Ltd,** 10012 – 109e Rue, Edmonton, Al.
28) **R. CJOB Ltd,** 930 Portage Ave, Winnipeg 10, M.
29) **Timmins Broadc. Ltd,** Thomson Bldg, Timmins, O.
30) **R. Gravelbourg Ltée,** Gravelbourg, Sa – 31) **R. Témiscamingue Inc,** Rue Saint-Anne, Ville-Marie, Qu – 32) **La Compagnie de Publication de "La Presse" Ltd,** 980 rue Sainte-Catherine-Ouest, Montréal, Qu.
33) **Dauphin Broadc. Co. Ltd,** Third Ave. N.E, Dauphin, M.
34) **Moffat Broadc. Ltd,** 1006 Richards St, Vancouver, BC.
35) **R. Dartmouth Ltd,** 66 Ochterkoney St, P.O. Box 1007, Dartmouth, NS – V. by letter. Records accepted – **F.PL:** 10kW – 36) **Camrose Broadc. Co. Ltd,** 4832 – 50th St, Camrose, Al – 37) **CKSO R. Ltd,** 336 Ash St, Sudbury, O – 38) **CHAB Ltd,** 127 Main St, Moose Jaw, Sa.
39) **CHRC Ltée,** Edif. Metropolitan, 39 rue St.-Jean, Québec, Qu.
40) **CJAD Ltd,** 1407 Mountain St, Montreal, Qu.
41) **Lakehead Broadc. Co. Ltd,** Fort William, O.
42) **CKOK Ltd,** 33 Carmi Ave, Penticton, BC. – V. by letter.
43) **Western Ontario Broadc. Co. Ltd,** 825 Riverside Dr. Windsor, O.
44) **Central Alberta Broadc. Co. (1961) Ltd,** 5405 Gaetz Ave, Red Deer, Al – 45) **R. Futura Ltd,** 211 Futura Ave, Verdun, Qu.
46) **Maple Leaf Broadc. Co. Ltd,** 848 Main St. East, Hamilton, O.
47) **The Sudbury Broadc. Co. Ltd,** 166 Elm St. West, Sudbury, O.
48) **Lower St. Lawrence R. Inc,** 6 rue St.-Jean, Rimouski, Qu.
49) **Island Braodc. Co. Ltd,** 817 Fort St, Victoria, BC.
50) **Central Broadc. Co. Ltd,** CKBI Bldg, 10th St, Prince Albert, Sa
51) **Inland Broadc. Ltd,** 387 – 4th Ave, Kamloops, BC.
52) **Dinosaur Broadc. (1957) Ltd,** Broadc. Bldg, Drumheller, Al.
53) **CJCH Ltd,** 741 Robie St, Halifax, NS.
54) **Algonquin R.-TV Co. Ltd,** 254 Queen St. East, Sault Ste. Marie, O.
55) **Fundy Broadc. Co. Ltd,** 68 Carleton St, Saint John, NB.
56) **Edmonton Broadc. Co. Ltd,** 10113 – 104th St, Edmonton, Al.
57) **Newfoundland Broadc. Co. Ltd,** Prince of Wales St, St. John's, Nf.
58) **Yorkton Broadc. Co. Ltd,** Tower Theatre Bldg, 2nd Ave, Yorkton, Sa – 59) **Barrie Broadc. Co. Ltd,** Barrie, O.
60) **Restigouche Broadc. Co. Ltd,** Bank of Nova Scotia Bldg, Campbellton, NB – 61) **Calgary Broadc. Co. Ltd,** 1301 – 17th Ave. S.W, Calgary, Al – 62) **Maritime Broadc. Co. Ltd,** Broadc. House, 10 Tobin St, Halifax, NS – 63) **Frontenac Braodc. Co. Ltd,** 170 Queen St, Kingston, O – 64) **La Compagnie de Radiodiff. CKCH de Hull, Ltée,** 72 Laval St, Hull, Qu – 65) **London Free Press Printing Co. Ltd,** 442-446 Richmond St, London, O.
66) **Kawartha Broadc. Co. Ltd,** Hunter and Water Str. Peterborough, O

67) **Maisonneuve Broadc. Corp. Ltd,** Montreal, Qu.
68) **R. NW Ltd,** Windsor Hotel, 227 Columbia St, New Westminster, BC – 69) **Western Communications Ltd,** 2060 Halifax St, Regina, Sa.
70) **Acadia Broadc. Co. Ltd,** Sawler Bldg, 399 King St, Bridgewater, NS – 71) **CFRB Ltd,** 37 Bloor St. West, Toronto, O.
72) **Northern Broadc. Corp. Ltd,** 9910 – 99th St, Grande Prairie, Al.
73) **R. CHUM-1050 Ltd,** 1331 Yonge St, Toronto 7, O.
74) **Hyland R.-TV Ltd,** Hyland Bldg, 119 East St, Sault Ste. Marie, O.
75) **R. Saint-Boniface Ltée,** 607 rue Langevin, Saint-Boniface, M.
76) **The Voice of the Prairies Ltd,** Broadc. House, Calgary, Al – **V.** by QSL-card. Records accepted – 77) **CJLR Inc,** Quebec, Qu.
78) **Sarnia Broadc. Ltd,** 148½ N. Front St, Sarnia, O – **V.** by letter or QSL-card. Records accepted – 79) **Southern Alberta Broadc. Ltd,** Lethbridge, Al – 80) **CKWX R. Ltd,** 1275 Burrard St, Vancouver, BC.
81) **CKXL Ltd,** 210 – 9th Ave. West, Calcary, Al.
82) **New Brunswick Broadc. Co. Ltd,** 85 Germain St, Saint John, NB.
83) **Wentworth R. Broadc. Co. Ltd,** 73 Garfield St. South, Hamilton, O.
84) **Sask Alta Broadc. Ltd,** R.-TV Bldg, 5036 – 50th St, Lloydminster, Al – 85) **CKTR (1958) Ltée,** 543 rue Gervais, Trois-Rivières, Qu.
86) **Western Manitoba Broadc. Ltd,** 2940 Victoria Ave, Brandon, M.
87) **Lethbridge Broadc. Ltd,** 1015 – 3rd Ave. South, Lethbridge, Al.
88) **Capital Broadc. System Ltd,** Douglas Hotel, Victoria, BC.
89) **Moncton Broadc. Ltd,** Knights of Pythias Hall, Moncton, NB.
90) **La Compagnie de Radiodiff. de Matane Ltée,** 4 rue Saint-Sacrement, Matane, Qu – 91) **Saskatoon Community Broadc. Co. Ltd,** Empire Hotel, Saskatoon, Sa – 92) **The Sunwapta Broadc. Co. Ltd,** 109 C.P.R. Bldg, 10012 Jasper Ave, Edmonton, Al.
93) **Monarch Broadc. Co. Ltd,** 520 First St, Medicine Hat, Al.
94) **Fraser Valley Broadc. Ltd,** 50 Yale Rd. East, Chilliwack, BC.
95) **Cape Breton Broadc. Ltd,** R. Bldg, 318 Charlotte St, Sydney, NS.
96) **CHIQ Ltd,** Hamilton, O.
97) **CJMS R.-Montreal Ltd,** 1700 Berri St, Montreal, Qu.
98) **CKCV (Québec) Ltd,** 978 rue Saint-Jean, Quebéc, P.Q. **Te:** 529-0011 – **V.** by letter. Rp.
99) **Southern Manitoba Broadc. Co. Ltd,** Altona, M.
100) **London Broadc. Ltd,** 343 Richmond St, London, O.
101) **R. Richmond Hill, Ltd,** Richmond Hill, O.
102) **CHGB Ltée,** Rue Painchaud, Sainte-Anne-de-la-Pocatière, Qu.
103) **CKOY Ltd,** 635 Richmond Rd, Ottawa, O.
104) **Vancouver Broadc. Associates Ltd,** Vancouver, BC.
105) **Hector Broadc. Co. Ltd,** 130 George St, New Glasgow, NS.
106) **Lakeland Broadc. Co. Ltd,** 16 Centre St, Oshawa, O.
107) **Bathurst Broadc. Co. Ltd,** 455 Golf St, Bathurst, NB.
108) **St. Lawrence Broadc. Co. Ltd,** 99 Brock St, Kingston, O.
109) **The Telephone City Broadc. Ltd,** 525 Colborne St. East, Brantford, O – 110) **R. CJFP Ltée,** 1 Christophe Colomb St, Rivière-du-Loup, Qu – 111) **Chateau Broadc. Co. Ltd,** 2015 Drummond St, Montreal 25, Qu – 112) **R. CFUN Ltd,** 1900 W. 4th Ave, Vancouver 9, BC – 113) **Foster Hewitt Broadc. Ltd,** 1 Grenville St, Toronto, O.
114) **Northwestern Broadc. Co. Ltd,** 1721 Main St, North Battleford, Sa – 115) **CJOY Ltd,** 50 Wyndham St, Guelph, O.
116) **R. Beauce Inc,** 30 rue Saint-Antoine, Cté de Beauce, Qu.
117) **Lakeshore Broadc. Ltd,** Pointe Claire, Qu.
118) **Kitchener-Waterloo Broadc. Co. Ltd,** 125 King St. W, Kitchener, O – 119) **Rogers Broadc. Ltd,** 13 Adelaide St. East, Toronto, O.
120) **R. Station CFOR Ltd,** 241 W. St. N, Orillia, O.
121) **Nanaimo Broadc. Corp. Ltd,** Malaspina Hotel, Front St, Nanaimo, BC – 122) **R. Laval Inc.** 1184 St. Catherine St. West, Montreal, Qu – 123) **R. Station CHVC Ltd,** 1745 River Rd, Niagara Falls, O.

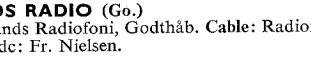
GREENLAND (Danish Territory)

L.T: GMT÷3 h – **Pr.L:** Greenlandic, Danish.

GRØNLANDS RADIO (Go.)
ADDR: Grønlands Radiofoni, Godthåb. **Cable:** Radiofoni. **Te:** 262 – **L.P:** Dir. Broadc: Fr. Nielsen.

STATIONS:
Godthåb 570kc 526 m 25kW Godhavn 650kc 461.5m 5kW
Frederikshåb 820kc 365.9m 5kW Godthåb FM 97.2Mc 0.25kW
Brown Boveri, Switzerland: delivered 25kW mw-tr. (Godhavn).

HOME SCE: W: 10.30–11.20, 15.00–16.05, 20.30–02.05. Sun: 11.30–12.30, 15.00–02.05. **N:** W: 15.30, 21.45. Sun: 22.00 – **Wrp:** W: 10.40, 16.00, 21.20, 02.00; Sun: 12.25, 16.25, 22.30, 02.00 – **Prgr's in Norwegian:** Sun 19.00–20.00(only 1/6–1/10) – **Faroese:** 20.00–21.00(only 1/6–1/10) – **For schools:** Mo, Tues, Wed: 13.00–14.30, 16.10–16.40.
ANN: "Kalâtdlit-nunâta râdiua – Grønlands radio..." – **V.** by letter or card. Rp – **F.PL:** sw-tr. in 1964.
INT-SIG: played on celeste.

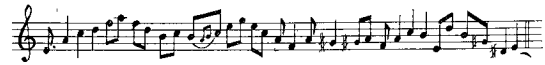


ARMED FORCES RADIO & TV SCE: See USA.

SAINT PIERRE ET MIQUELON (French)

L.T: GMT÷3 h – **Pr.L:** French.

RADIO ST. PIERRE (Go.)
FI: By R.diff. Télévision Française (Paris) – **ADDR:** Service de la Radiodiff. Télévision Française. St. Pierre et Miquelon. **Cable:** RTF. **Te:** 051 – **L.P:** Dir: J. Guerlais. Dir. Tec: L. Langlois.
STATION (System TRT): 1375kc 218.2m 4kW.
HOME SCE. in French: W: 10.00–12.00, 15.00–16.30(Thurs, Sat 18.00), 21.30–01.00(Sat 02.00). Sun: 13.00–18.00, 21.30–02.00. **N:** 10.00(W), 11.00(W), 15.25, 23.05 – **Wrp:** 15.35, 23.01, 23.30 – **T.S:** 15.00, 16.00, 18.30, 20.00 – **L.L. English:** Tues, Thurs, Sat 22.00–22.10.
ANN: "Ici Saint Pierre et Miquelon-Radiodiff. Télévision Française".
INT-SIG:



V. by letter. Records accepted.

UNITED STATES OF AMERICA

L.T: See World Time Map and Table – **Pr.L:** English.

VOICE OF AMERICA (Go.)
"THE VOICE OF AMERICA" is operated by the Broadcasting Service of the United States Information Agency. The VOA seeks to promote an increased understanding of the United States among the peoples of the world and to strengthen cooperative international relations.
ADDR: Voice of America, U.S. Information Agency, 330 Independence Av, S.W. Washington 25, D.C. – **L.P:** Dir. US Information Agency: Edward R. Murrow. Dir. Broadc. Sce: Henry Loomis. Prgr. Mgr: Alexander A. Klieforth. Engineering Mgr: Edgar Martin. Dir. TV Sce: Alan Carter.
STATIONS: Call-letters not used.

Delano	(50/100/200kW): Delano, California.
Dixon	(50/100/200kW): Dixon, California.
Bound Brook	(50kW): Bound Brook, New Jersey.
Bethany	(110kW): Bethany, Ohio.
Greenville	(50/250/500kW): Greenville, No. Carolina.
Marathon	Florida (50kW – 1180kc).
Sugarloaf	Florida (50kW – 1040kc).
Honolulu	Hawaii (100kW).

East Coast Stations:
Unmarked=Greenville, *=Bethany, **=Bound Brook.

kc	m	kc	m	kc	m	kc	m
5965	50.20	9670	31.02	15130	19.83	15410	19.47
5975	50.21	9700	30.93	15160	19.79	15415	19.46
5995	50.04	9720	30.86	*15195	19.74	17710	16.94
6030	49.75	9725	30.85	15205	19.73	17755	16.90
*6045	49.63	**9740	30.80	15215	19.71	*17780	16.87
*6065	49.46	*9770	30.71	**15225	19.70	*17795	16.86
6075	49.38	*11710	25.62	*15235	19.69	17830	16.83
*6155	48.74	*11730	25.58	15240	19.69	*17845	16.81
6175	48.58	11775	25.48	*15250	19.67	*17855	16.80
6190	48.47	*11790	25.45	15270	19.65	*21485	13.96
9525	31.50	11805	25.41	**15280	19.63	**21540	13.93
*9530	31.48	11830	25.36	15305	19.60	21570	13.91
9540	31.45	*11855	25.31	15325	19.58	21590	13.90
9560	31.38	**11875	25.26	15330	19.57	*21610	13.88
9570	31.35	11890	25.23	*15355	19.53	21645	13.86
9615	31.20	**11910	25.19	15360	19.53	**21720	13.81
9635	31.14	11940	25.13	*15390	19.49	**21740	13.80
*9650	31.09	**11970	25.06	15400	19.48		

Continental Electronics, USA: Six 500 kW sw-tr's Greenville.
West Coast Stations: Unmarked=Delano, *=Dixon.

kc	m	kc	m	kc	m	kc	m
5965	50.20	6195[1]	48.43	11740	25.55	*17735	16.92
*5985	50.13	9545	31.43	11770	25.49	17765	16.89
6040	49.67	*9590	31.28	11775	25.48	17820	16.84
6060	49.50	9625	31.17	*11845	25.33	*17850	16.81
*6085	49.30	9650[1]	31.09	11870	25.27	*21590	13.90
6095	49.22	*9665	31.04	*15150	19.80	*21650	13.86
*6145	48.82	9700	30.93	15315	19.59	21745	13.80
6185	48.50	9735	30.82	*15405	19.47		

[1]=Honolulu, Hawaii.

RELAY STATIONS:
For frequencies of the relay stations, refer to the individual countries: Germany, Greece, Great Britain, Morocco, Ceylon, Ryukyu Islands, Philippines, Liberia.

ANNOUNCEMENT:
Each program ends with these words spoken in English: "This program has come to you from the United States of America". The station identification is then announced in English.

INTERVAL SIGNAL:
Choir of brass playing a 10 note version of "Columbia, the Gem of the Ocean". This musical symbol is played at the beginning of a transmission, during station breaks, and at the conclusion of a transmission. At the beginning of a transmission the sign on announcements is followed by 3 minutes of musical symbol made up of alternate 5 seconds music and 5 seconds silence.

VERIFICATION by QSL-card. No return postage required.
F.PL: The Voice of America is completing a new station to be on the air in 1964 at Monrovia, Liberia, to consist of six 250kW and two 50kW shortwave transmitters. The primary purpose of the station is to reach all of Africa and to give supplemental coverage to parts of Central Europe and the Middle East. Until it is finished, the VOA is broadcasting via three 50kW transportable shortwave transmitters temporarily set up on the Monrovia site.

To Europe

	U.S.m.b.	Relay Stations m.b.
ALBANIAN		
05.30–06.00	—	49
20.00–20.30	19, 25, 31	31, 41, 49, 379
22.00–22.30	—	41
ARMENIAN		
14.30–15.00	13, 16, 19	19, 25, 31, 41
15.30–16.00	—	19, 25, 31
BULGARIAN		
04.15–04.30	31, 49	31, 41, 49
16.30–17.00	13, 16, 19	19, 25, 31, 41
*18.30–19.00	—	379
19.30–20.00	16, 19, 25	25, 41, 49, 379
CZECH-SLOVAK		
04.30–04.45	31, 49	31, 41, 49, 251
05.30–05.45	31, 49	31, 41, 49
20.30–21.00	19, 25, 31	31, 41, 49
22.00–22.30	19, 25, 31	31, 41, 49
ESTONIAN		
02.00–02.30	—	41, 49
18.30–19.00	16, 19, 25	31, 41, 49
19.30–20.00	—	31, 49
GEORGIAN		
14.00–14.30	13, 16, 19	19, 25
15.00–15.30	—	19, 25, 31, 41
HUNGARIAN		
05.15–05.30	31, 49	31, 41, 49
06.15–06.30	31, 49	31, 41, 49
18.30–19.00	16, 19, 25	31, 41, 49
21.30–22.00	19, 25, 31	31, 41, 49
*22.30–23.00	—	31, 41, 49, 379
23.00–23.30	—	251
LATVIAN		
*02.00–02.30	—	31, 41, 49
17.30–18.00	13, 16, 19	31, 41, 49
19.00–19.30	—	31, 49
LITHUANIAN		
*03.00–03.30	—	31, 41, 49
16.30–17.00	13, 16, 19	19, 25, 31, 41, 49
18.30–19.00	—	31, 49
POLISH		
05.00–05.15	31, 49	31, 41, 49
06.00–06.15	31, 49	25, 31, 41, 49
16.00–16.30	13, 16, 19	19, 25, 31
19.30–20.00	16, 19, 25	41, 49, 251
21.30–22.00	—	31, 41, 49, 251
RUMANIAN		
04.00–04.15	31, 49	31, 41, 49
17.30–18.00	13, 16, 19	31, 41, 49, 379
20.30–21.00	19, 25, 31	31, 41, 49, 379
RUSSIAN		
02.30–03.00	31, 49	31, 41, 49
*03.30–04.00	—	31, 41, 49
04.30–05.00	31, 49	31, 41, 49
*06.30–07.00	—	25, 31, 41, 49
15.00–18.00	13, 16, 19	25, 31, 49
18.00–21.30	19, 25, 31	31, 41, 49
SERBO-CROAT		
04.45–05.00	31, 49	31, 41, 49, 251
05.45–06.00	—	25, 31, 41, 49
19.00–19.30	16, 19, 25	31, 41, 49, 251, 379
21.00–21.15	19, 25, 31	31, 41, 49, 251, 379
22.15–22.30	—	379
SLOVENE	**U.S.m.b.**	**Relay Stations m.b.**
17.00–17.15	13, 16, 19	19, 25, 31, 41
21.15–21.30	19, 25, 75	31, 41, 49, 251
UKRAINIAN		
03.30–04.00	—	31, 41, 49
15.30–16.00	13, 16, 19	16, 19, 25, 31, 49

To Africa

ARABIC		
17.30–18.00	13, 19	49
19.00–19.30	19, 25	49
FRENCH		
17.00–17.30	16, 19	19, 41, 49
19.30–20.00	16, 19, 25	19, 49, 75
21.30–22.00	19, 25, 31	41, 49, 75
HINDI		
18.30–19.00	—	19, 25
SWAHILI		
03.00–03.30	31, 49	41, 49
14.30–15.00	—	19

To Near- and Middle East

ARABIC		
04.00–06.00	—	41, 49, 238
17.00–21.00	—	41, 49, 238
TURKISH		
16.30–17.00	16, 19	19, 31, 41, 49, 238
17.30–18.00	—	19, 31

To South Asia

BENGALI (To Pakistan)		
14.30–15.00	13, 16, 19	13, 16, 19, 25
BENGALI (To India)		
13.30–14.00	13, 16, 19	13, 16, 19, 25
HINDI		
15.30–16.00	13, 16, 19	13, 16, 19, 25, 41
TAMIL		
14.30–15.00	13, 16, 19	13, 16, 41
URDU		
15.00–15.30	13, 16, 19	13, 25
16.00–16.30	—	19, 25

To Far East

BURMESE		
00.30–01.00	13, 16	16, 19
09.00–09.30	25, 31	—
12.30–13.00	31, 49	25
13.00–13.30	—	25
14.30–15.30	—	25, 31
CAMBODIAN		
13.30–14.00	31, 49	19, 25, 263
23.30–00.00	13, 16	31, 41
INDONESIAN		
11.00–12.00	31, 49	19, 49
13.00–14.00	—	19, 49
KOREAN		
11.30–12.00	31, 49	41, 49, 255
13.00–13.30	—	41, 49, 255
21.30–22.30	16, 19, 25	49, 75
22.30–23.00	—	75
LAO		
13.00–13.30	31, 49	19, 25, 263
23.00–23.30	13, 16	41, 49
MANDARIN		
10.00–11.00	31, 49	19, 25, 41, 49
11.00–11.30	—	25, 31, 41, 49
11.30–12.00	—	25, 31, 41, 49, 263
12.00–12.30	31, 49	19, 25, 31, 41, 49, 255, 263
12.30–13.00	—	31, 41, 49
13.00–13.30	—	31, 41, 49
13.30–14.00	31, 49	25, 31, 41, 49, 255
14.00–14.30	—	31, 41, 49, 263
14.30–15.00	25, 31, 49	31, 41, 49, 255, 263
*15.00–15.30	—	31, 41, 49
*15.30–16.00	—	25, 31, 41, 49, 255
22.30–23.00	13, 16	31, 41, 49, 326
*23.30–00.00	—	31, 41, 49
*00.30–01.00	—	16, 19, 25, 31

RUSSIAN	U.S.m.b.	Relay Stations m.b.
09.30–11.00	31, 49	19, 25, 41, 49
12.30–13.00	—	41, 49, 255
15.00–15.30	25, 31, 49	41, 49, 255
20.30–21.00	—	41, 49
THAI		
14.00–14.30	31, 49	19, 25, 263
23.30–00.00	13, 16	31, 41
UKRAINIAN		
15.30–16.00	25, 31, 49	—
20.00–20.30	—	41, 49, 75
VIETNAMESE		
04.30–05.00	25, 31	19, 25
12.30–13.00	31, 49	19, 25, 49, 263
15.30–16.00	—	31, 263
22.30–23.00	13, 16	41, 49

To Latin America

SPANISH	U.S. (kc)
11.00–14.00	1040, 1180, 6155, 9525, 11890, 15235
22.30–23.00	1040, 1180, 5975, 15355
23.00–01.00	1040, 1180, 5975, 9670, 9725, 11940, 15355, 15400
01.00–04.30	1040, 1180, 5975, 6155, 9530, 9670, 9725, 11940, also 9735, 11770 02.00–04.00
PORTUGUESE	
21.30–22.00	15325
22.00–23.00	11830, 15325, 17755
23.00–01.00	9615, 11830, 15325

Programs in English

TO EUROPE	U.S. kc	Relay Stations (kc)
03.00–03.30	5995, 9635	6040 M, 6080, 7200 T
04.00–04.30	5995, 9635	1196, 3980, 6040 M, 6080, 7200 T
04.30–06.00	5995, 9635	3980, 6040 M, 6080, 7200 T, 1196 M (from 05.00)
06.00–07.30	5995, 9635	1196, 3980, 6040 M, 6080, 7200 T, 9520 T
07.30–07.45(Sun)	5995, 9635	6080, 7200, 9520 T
14.00–16.00	15205, 17780	3980 M, 15290 T
16.00–16.30	15205, 17780	3980 M, 15290 T, 6185 TH
16.30–17.00	15205, 17780	3980 M, 6185 TH
17.00–18.00	15205, 17780	1196, 3980 M, 6140, 9525 T, 6185 TH
18.00–22.15	9740, 11910, 15205	3980 M, 6140, 9525 T, 6185 TH, 1196M (to 19.00)
22.15–22.45	—	3980 M, 6140, 9525 T
22.15–22.30(Sun)	—	6160 M, 6185TH
22.15–23.00	—	1196
TO EAST AFRICA		
03.30–04.00	6065, 9720	6075 L, 7250 M
04.00–04.30	—	6075 L
04.30–07.30	—	9545 L
14.00–14.30	—	15185 M, 15350 L
15.00–16.00	—	15185 M, 15350 L
16.00–17.00	—	15350 L
17.30–18.00	—	15350 L
18.00–20.30	—	15350 L, 15265 C (18.00–18.30)
TO SOUTH AFRICA		
03.00–04.30	—	7195 L
15.00–16.30	—	17870 L
TO WEST & CENTRAL AFRICA		
04.30–07.30	—	3965, 6075 L
15.00–17.00	15410, 17710	15315, 15350 L
17.30–18.30	15410, 17710	7195, 15315, 15350 L
18.30–19.00	15415, 17710	15350 L
19.00–19.30	15415, 17710	3965, 6035, 15350 L
20.00–21.30	15415, 17710	3965, 6035, 15350 L
22.00–22.30	9720, 15415	3965, 6035, 7195 L
22.30–23.15 (Sun to 23.45)	—	3965, 6035, 7195 L
TO MIDDLE EAST		
03.00–03.30	—	6020 M, 7255, 9615 T
04.00–04.30	—	6040 M, 9615 T
04.30–05.00	—	6040, 9545 M, 6115 T
05.00–07.00	—	6040, 9545 M, 9615
07.00–07.30	—	9545 M, 9615, 11875 T 1259, 6185, 7130 R
07.30–07.45(Sun)	—	9545 M, 9740, 11875 T
12.00–13.00	—	17855 T, 15265 M
13.00–14.00	—	15290, 17855 T, 15265 M
14.00–14.30	—	15290, 17855 T, 6015, 7130 R
14.30–16.00	—	15290 T, 6015 R, 7205 TH
16.00–16.30	—	15290, 17855 T, 1259, 6015, 7130 R
16.30–17.00	—	7205 TH
17.00–22.15	—	9530 M, 7205 TH
22.15–22.30(Sun)	—	9530 M, 7205 TH
TO SOUTH ASIA		
01.00–03.30	—	7275, 11835 C
12.00–13.30	—	7110, 11835, 15415 C
13.30–14.00	—	7110 C
14.00–14.30	—	7110, 11835, 15415 C
15.00–15.30	—	7110, 15415 C
16.00–16.30	—	7110 C
16.30–18.00	—	7110, 11835, 15415 C
TO EAST ASIA		
09.00–11.30	6145, 9590	6195 H, 11785 P, 5975, 7155 OK
11.30–12.00	—	6195 H, 11785 P, 5975 OK
12.00–12.30	6145, 9590	6195 H, 11785 P, 5975, 7155 OK
12.30–13.00	—	6195 H, 5975, 7155 OK
13.00–16.00	6145, 9590	6195 H, 7275 P, 5975, 7155 OK
16.00–16.30	6145, 9590	6195 H, 7275 P, 1178, 5975, 6010, 7155, 7235 OK
21.00–21.30	—	7135, 6185 P, 3940, 6075, 6145 OK
22.00–22.30	15405, 17850, 21650	7135, 9580 P, 3940, 6075, 6145 OK
23.00–23.30	17735, 17765, 21745	7135, 9580, 6185 P, 6075, 6145 OK
00.00–00.30	17765, 21745	9580 P, 15210 OK
01.00–01.30	17765, 21745	9580 P, 11960, 15210 OK
TO SOUTHEAST ASIA & *INDONESIA		
09.00–12.30	—	15335 P
13.00–14.00	—	9620 P
14.00–15.00	—	*6125, 9620 P
15.00–16.00	—	*6125, 9620 P
16.00–16.30	—	1140, 5985, *6125, 7175, 9655, 11770 P
22.00–22.30	—	6065, 7175 P
23.00–23.30	—	7225 P
00.00–00.30	—	7175, *15155
01.00–01.30	—	*15155, 15185, 15250, 17745, 17845
TO OCEANIA		
09.00–14.15	5985, 9665	9650 H
14.15–16.30	—	9650 H
TO LATIN AMERICA	U.S. kc	
23.00–03.35	5965, 6045 (from 01.15–03.30), 9570, 9650, 11790, 11830 (from 01.00), 11890 (from 01.00), 15215 (to 02.00)	

Transmitter Abbreviations: G = Greenville, No. Carolina, R = Rhodes, B = BBC, London, C = Colombo, H = Honolulu, L = Liberia, M = Munich, OK = Okinawa, P = Philippines (Malolos & Poro), T = Tangier, TH = Thessaloniki, MV = Monrovia, Liberia.

N. in English, Portuguese, Spanish: on the h.

N. in French, Russian: at the beginning of prgr.

VOA Amateur Radio Program

Sun: 07.30–07.45: To Europe: 6080/6170/7200/7255/9520 (T); to Europe/M. East: 6040/9545 (M); to No. Africa: 5995/9635 (G); to M. East: 9740/11875 (T); to F. East: 6185/9545kc (Delano) – **08.45–09.00:** To East Asia: 5975/6010/7155/7235 (OK), 6195 (H), 11770/11785/15210/15250/15335 (P); to Australia/N. Zealand: 9650kc (H) – **22.15–22.30:** To Europe: 6160kc (M); to Europe/M. East: 6015/7130 kc (CR); to M. East: 1259 (CR), 7205 (TH), 9530kc (M) – **22.30–22.45:** To We. Africa: 9720kc (G) – **22.45–23.00:** To Europe: 3980 (M), 6140/9525kc (T) – **23.30–23.45:** To We. Africa: 3965/7195kc (L); to No. Africa: 6035kc (L) – **Mo 03.30–03.45:** To Latin America: 6030/6045/9570/11830/11890 (G), 9650kc (Bethany) – **Spacewarn Broadcasts** (for So. America): Tues–Sun 03.30–03.35 on 6030/9570/11830/11890kc (G), 9650kc (Bethany).

ARMED FORCES RADIO and TELEVISION SERVICE

ADDR: Directorate of Armed Forces Information and Education, Washington 23, D.C. – **FI:** By State (Dept. of Defense).

This office exercises over-all policy control of the Armed Forces Radio and Television Service. The mission of AFRTS is to keep U.S. Service men and women stationed outside the States the best informed service personnel in the world on current events. **All broadcasts are in English.** News, sports and other timely matter is beamed overseas directly by ten powerful tr. on the U.S. Atlantic and Pacific coasts. These s.w. broadcasts serve the overseas radio stations, which rel. them locally. Prgrs. other than news and locally produced prgrs. are derived directly from the U.S. Commercial radio and tv. networks. N. is compiled from the wires of A.P. and U.P.I. and include voice actuality and

"from the scene" report segments. Regular shortwave prgr's are presented daily from both Los Angeles and New York City, over the tr's of the V.O.A. The operational headquarters of AFRTS, at Los Angeles, ships undated radio and tv. prgrs. on transcription and film, respectively, to overseas stations, and controls the Pacific Shortwave Service. Officer in Charge: Lt. Colonel Lother B. Sibert, USA.

PACIFIC SERVICE (from Los Angeles).
ADDR: AFRTS Shortwave 1016 No. McCadden Place, Los Angeles 38, Calif. **Te:** Hollywood 23301 – **L.P:** Officer in charge: Lt. Colonel L. B. Sibert. (All communications must be received through officer in charge).
D.PRGR: 22.30–16.30.

Call	kc	m	kW	Beam	h of tr.
KCBR2	5965	50.28	50	Japan, Korea	08.15–16.30
KCBR4	6095	49.22	100	Caribbean	10.00–12.45
KCBR4	6040	49.67	100	Alaska/Aleutians	05.15–09.15
PHIL	9655	31.07	35	So. Ea. Asia	16.00–16.30
KCBR3	9700	30.93	50	Alaska/Aleutians	15.00–16.30
KCBR3	9700	30.93	50	Philippines/Marianas	06.15–15.00
KCBR4	11710	25.62	100	Caribbean	13.00–15.00
KCBR2	11740	25.55	50	Japan/Korea	03.00–08.00
KCBR3	11870	25.27	50	Alaska/Aleutians	22.30–06.00
KCBR5	15210	19.72	50	Philippines/Marianas	02.00–06.15
PHIL	15210	19.72	35	So. Ea. Asia	09.00–12.00
KCBR4	15275	19.64	100	Caribbean	22.30–01.30
KCBR2	17820	16.84	50	Japan/Korea	22.30–02.45

N: Hourly from 23.00–16.00.
Conference Period: D 22.30, 09.05, 14.30.
ANN: At the end of prgr: "This is AFRTS Shortwave at Los Angeles". *Hourly:* "*This is the United States Armed Forces Radio and Television Service, the Voice of Information and Education, broadc. on VOA transmitter KCBR at Delano, California. On-the-scene reports and voices of the world's news makers highlight up-to-the-minute national and international news throughout the broadcast day*" – **V.** by QSL-card – Freq.s are announced thirty minutes past each hour.
EUROPEAN SERVICE (from New York).
ADDR: Armed Forces Press, Radio and Television Service, 250 West 57th Street, New York 19. N.Y. – **L.P:** Officer-in-charge: Lt. Col. J. D. Hornsby, USAF.
D.PRGR: 50kW – Period: All year.

Call	kc	m	kW	Beam	h of tr.
GA9	21645	13.86	50	Europe	14.30–18.00
GA9	15280	19.63	50	No. Atlantic/Europe	14.30–20.00
WBOU6	15270	19.65	50	Caribbean	14.30–22.45
WBOU3	15225	19.70	50	Europe, No. Af.	14.30–22.45
GB9	11865	25.28	50	No. Atlantic/Europe	18.15–22.45
GB4	9615	31.20	50	Europe	20.15–22.45

N: 15.00, 17.00, 18.00, 19.00, 20.00, 21.00, 22.00.
"New York Calling" (conference period): D 14.30, 17.55.
ANN: "This is the United Armed Forces Radio Service in New York City" – **V.** by QSL-card – **PUB:** Prgr. sched. published quarterly, available on request.

A.F.R.T.S.s OUTLETS: BROADCASTING
Abreviations: A=Army – AFKN=American Forces Korea Network – FEN=Far East Network – N=Navy – AF=Air Force – Fo=Fort. – Cp=Cape.
The greater majority of the stations operate from 06.00–24.00 L.T.

NORTH ATLANTIC

Location	Sce.	kc	W
Azores			
Lajes Fld.			
Terceira	AF	1500	200
Greenland			
Sondrestrom			
AB	AF	1420	250
Thule AB	AF	1425	1kW
Thule AB	AF	1210	250
Iceland			
Keflavik	N	1484	250
Hoefn	AF	1400	10
Langanes	AF	1400	10
Labrador			
Hopedale	AF	975	25
Saglek Bay	AF	1350	45
Newfoundland			
Argentia	N	1480	50
Stephenville	AF	1490	50
ALASKA			
Adak	N	890	250
Bethel	AF	1490	10
Campion (Galena)	AF	570	250
Cape Lisburne	AF	1580	10
Cp. Newenham	AF	1450	10
Cp. Prince of Wales	AF	1540	10
Cp. Romanzoff	AF	1590	10
Cp. Sarichef	AF	1400	10
Cold Bay	AF	1490	50
Driftwood Bay	AF	1450	10
Elmendorf	AF	860	50
Fire Island	AF	1470	10
Fo. Greely	A	980	250
Fo. Richardson	A	1360	50
Fo. Wainwright	A	1360	50
Fo. Yukon	AF	1520	10
Indian Mountain	AF	1240	10
Indian Mountain	AF	1590	10
King Salmon	AF	790	250
Kodiak	N	960	250
Kotzebue	AF	1530	10
Middleton Isl.	AF	1520	10
Murphy Dome		1570	10
Nikolski	AF	1340	10
Nome	AF	590	1kW
Northeast Cape	AF	1450	10
Ohlson Mountain	AF	1400	10
P. Heiden	AF	1340	10
P. Moller	AF	800	10
Shemya	AF	1240	10
Site Love	AF	1340	10
Sparrevohn	AF	1550	10
Takotna (Tatalina)	AF	1540	10
Unalakleet	AF	1400	10
Wildwood	A	1530	10
Clear AF Station		1490	
CARIBBEAN AREA			
Ascension Isl.	AF	1600	1kW
Trinidad	N	1550	1kW
Cuba			
Guantanamo Bay	N	1340	1kW
Panama			
Fo. Clayton	A	790	5kW
Fo. Davis	A	1420	1kW
Puerto Rico			
Fo. Allen	A	1470	50
Fo. Brooke	A	1470	50
Ramey AFB	AF	780	50
Roosevelt Roads	N	1470	50
MIDDLE EAST AREA			
Asmara, Eritrea	A	1480	200
Teheran, Iran	A	630	250
Turkey			
Adana	AF	1594	10
Cigli	AF	1570	4
Karanursel	AF	1570	25
Diyarbakir	AF	1570	6
Samsun	AF	1250	10
Trabzon	AF	1580	10
NORTH AFRICAN AREA			
Libya			
Tripoli	AF	1594	1.6kW
Morocco			
Nouasseur	AF	1594	100
P. Lyautey	N	1484	250
Sidi Slimane	AF	1594	250
EUROPEAN AREA			
Germany (see Germany)			
Greece			
Athens	AF	1580	250
Iraklion, Crete	AF	1570	250
Spain (see Spain)			
Italy			
Leghorn	AF	540	5
Verona	AF	540	5
Vicenza	AF	540	5
FAR EAST AREA			
Japan (FEN) (see Japan)			
Okinawa	AF	650	10kW
Philippine Islands			
Camp John Hay	AF	1300	250
Clark AFB	AF	1520	1kW
Sangley Point	N	1220	250
Subic Bay	N	1300	250
Taiwan			
Tainan	AF	1580	250
Taipei	N	1560	5kW
	N	7215	1kW
Republic of Korea (AFKN) see Korea			
Vietnam			
Saigon	A	1360	600
PACIFIC AREA			
Guam			
Finegayan	N	1550	50
Andersen	AF	1090	250
Johnston Island	AF	1250	100
Marshall Islands			
Eniwetok	N	1385	250
Kwajalein	N	1220	1kW
Midway Island	N	900	250

Continental Electronics, USA, delivered to AFRTS Overseas: 3×1, 4×5kW mw-tr's, one 1kW sw-tr.

PRIVATE STATIONS

GOVERNMENT AGENCY:
The Federal Communications Commission, the licensing agency for broadc. st's – Educ. Broadcasting Branch, Chief, Lawrence T. Frymire. Compiles information, conducts studies, and serves as a clearinghouse of information to private and government goups interested or involved in educ. broadc.
Addr: P.O. Dept. Bldg. Washington 25, D.C. – **L.P:** Chmn: E. W. Henry. Exec. Dir: C. B. Plummer. Secr: B. F. Waple. Chief, Reports & *Inf: G. O. Gillingham.*
The FCC is an independent Federal agency composed of seven Commissioners appointed by the Pres. by and with the advice and consent of the Senate. One of its major activities is the general regulation of broadc. – now visual as well as aural. This regulation, largely technical in nature, may be divided into two phases: 1) The allocation of spectrum space to the different types of broadcast services. 2) Considerations to build and operate individual stations.
Call letters. – International agreement provides for the national identification of the radio st. by the first letter or first two letters of its assigned call signal, and for this purpose apportions the alphabet among different nations. USA st's use the initial letters K,N, and W, exclusively, and part of the A series. Broadcast st's are assigned call letters beginning with K or W. Generally speaking, those beginning with K are assigned to st's west of the Mississippi River and in the territories and possessions, while W is assigned to broadcast st's east of the Mississippi.

Number of Broadc. St's in the USA as of Sept. 1. 1963:	Authorized	Licensed Operating	Unlicensed**
AM comm.	135	3826	56
FM comm.	76	1101	30
FM educational	14	216	11
TV comm.	80	522(7*)	55
TV educational	22	57(1*)	13

* Licensed only – ** Operations on Prgr. Test.

EDUCATIONAL
Department of Health, Education, and Welfare, Washington 25, D.C. Office of the Under Secretary: I. A. Nestingen.
The Educational Television Facilities Prgr. designed to encourage establishment of new and improved broadcast facilities through financial grants based on matching funds.
Office of Education, Educational Media Branch, Acting Chief, J. A. Gough – Provides a variety of sce's by professional staff specialists to

schools and college officals, st. operators, and others, as requested. Under Title VII of the National Defense Education Act, finances research and experimentation in the educ. uses of all media; disseminates information on the subject through conferences, seminars, workshops, and publication of pertinent bulletins.

Organisations:

National Association of Educational Broadcasters (NAEB).

Headquarters: 1346 Connecticut Ave. N.W. Washington 36, D.C. Te: 667-6000. Publications and Network Offices: 119 Gregory Hall, Urbana, Illinois. Te: 333-0580 – L.P: Pres: W. G. Harley, Vice-Pres: H. E. Hill. Stations: 187 educ. institutions and organizations owning and operating a total of 244 educ. radio and TV st's.

FI: By membership fees. Also some support from outside sources for special research projects. The national independent professional association, which since 1925 has represented the interests and needs of educ. television and radio broadcasters, represents appr. 75% of the educ. st's and production centers of the United States (appr. 90% exc. those identified as religious st.).

Activities and Functions: The NAEB is the Association of American institutions operating educational, cultural and public Sce's radio and TV st's and production centers. Publish a monthly Newsletter, a semi-monthly Washington Report, and a bi-monthly Journal. The NAEB also operates a radio network which duplicates via tape and distributes to members st's five hours of programming per week. At present there are some 141 st's in this network. Exchanges of prgr's with other nations are welcomed. It also actively cooperates with various intern. organizations (European Broadcasting Union, UNESCO etc.), and the national systems of various other countries. According to FCC regulations, non-comm. educational FM st's have no restrictions on transmission time.

National Educational Television Center, Coliseum Building, 10 Columbus Circle, New York 9, New York.

Provides a prgr. sce. to affiliated educ. t.v. st's throughout the USA. Major support for the 10 years of existence has come from the Ford Foundation.

Radio – By action of the FCC, some 20 channels are reserved in the FM radio band for non-commercial educ. use. More than 200 st's are operating in this reserved band. In addition, some 30 st's which began on AM operating in the early days of radio are still in operation. Many of them have dual outlets in the FM band. These st's provide both in-school and out-of-school prgr's to the communities in which they operate.

Television – In April, 1962, the FCC announced the reservation of approx. 12% of available t.v. channels for non-comm. educ. use. Reserved channels presently total 325 in the VHF and UHF bands, of which 80 are presently on the air. The st's are licensed to State Departments of Education, to city school systems and to individual universities, or to community corporations which embrace entire school and cultural organizations within a community.

COMMERCIAL STATIONS

NATIONAL ASSOCIATION OF BROADCASTERS

ADDR: 1771 N. Street N. W. Washington 36, D.C. – **Te:** Decatur 333-080.

Purpose: The purpose of the Association is to foster and promote the development of the arts of aural and visual broadc. in all its forms; to protect its members in every lawful and proper manner from injustices; to do all things necessary and proper to encourage customs and practices which will strengthen and maintain the broadc. industry to the end that it may best serve the public.

L.P: Chmn: W. B. Quarton. Pres: LeRoy Collins Sec-Treasurer: E. E. Revercomb.

Members as of Aug. 15, 1963: AM Radio 1912 – FM Radio 663 – TV stations 410 – Radio Networks 4 – Television Networks 3. Associate Members 123.

M. W. Stations operating with a power of 10 kW and above. The time each station is authorized to operate is indicated in the list. Each station is required to operate at least two-thirds of the hours it is authorized to operate between 6:00 AM and 6:00 PM, and two-thirds of hours it is authorized to operate between 6:00 PM and midnight. If authorized to operate unlimited time, it may operate for the entire 24 h.

Abbreviations: D: Daytime operation. LS=Local Sunset. N: Night. L+Limited Time. +=CP granted for increase of power. CP=Construction permit. a) 24 h. Al=Alabama. Ala=Alaska. Ariz=Arizona. Ark=Arkansas. Cal=California. Colo=Colorado. D=Dakota. Fla=Florida. Ga=Georgia. Id=Idaho. Ill=Illinois. Ind=Indiana. Ia=Iowa. Kan=Kansas. Ky=Kentucky. La=Louisiana. Md=Maryland. Mo=Missouri. Mihc=Michigan. Mass=Massachusetts. Minn=Minnesota. N.C.=No. Carolina. Neb=Nebraska. N.Y.=New York. O=Ohio. Okla=Oklahoma. Or=Oregon. Pa=Pennsylvania. P.R.=Puerto Rico. S.C.=So. Carolina. Tex=Texas. Tenn=Tennessee. Va=Virginia. Wisc=Wisconsin. U=Utah. ABC=American Broadc. Co., CBS=Columbia Broadc. System; Keystone Broadc. System; MBC=Mutual Broadc. Co., NBC=National Broadc. Co.

Call	kW	
540		
WGTO	50	Cypress Gardens, Fla. D
640		
KFI	50	Los Angeles, NBC a)
650		
KORL	10	Honolul, Haw, M a)
WSM	50	Nashville, Tenn. NBC a)
660		
WNBC	50	New York, N.Y. NBC a)
WESC	10LS	Greenville, SC. D.
670		
WMAQ	50	Chicago, Ill. NBC a)
680		
KNBR	50	S. Francisco, NBC a)
WCBM	10	Baltimore, Md. CBS a)
WNAC	50	Boston, Mass. a)
WPTF	50	Raleigh, N.C. NBC a)
WMPS	10	Memphis, Tenn. a
KBAT	50	LS San Antonio, Tex. CBS a)
WAPA	10	S. Juan, P.R. ABC, MBS a)
690		
WAPE	50	Jacksonville, Fla. D
KULA	10	Honolulu, Haw. ABC a)
KGGF	10LS/5N	Coffeyville, Kans. ABC a)
KHEY	10	El Paso, Tex. a)
WVOK	50	Birmingham, Ala. D
WCYB	10	Bristol Va. A D
700		
WLW	50	Cincinnati, Ohio ABC, NBC a)
710		
KMPC	50LS/10N	L. Angeles, Cal. a)
WGBS	50LS	Miami, Fla. C a)
KEEL	50/5	Shreveport, La. a)
WHB	10LS/5N	Kansas City, Mo. a)
WOR	50	New York, N.Y. MBC a)
KGNC	10	Amarillo, Tex. NBC a)
KIRO	50	Seattle, Wash. CBS a)
720		
WGN	50	Chicago, Ill. M a)
730		
KFQD	10	Anchorage, CBS a)
740		
KCBS	50	S. Francisco, CBS a)
KBIG	10	Avalon, Calif. D
KTRH	50	Houston, Tex. CBS a)
WBAM	50	Montgomery, Ala.
WPAQ	10	Mt. Airy, N.C. D
750		
WSB	50	Atlanta, Ga. NBC a)
KXL	50	Portland, Ore. a)
KMMJ	10	Grand Island, Neb. ABC D
760		
KGU	10	Honolulu, NBC a)
WJR	50	Detroit, Mich. a)
770		
KOB	50LS/25N	Albuquerque, N. Mex. NBC a)
WABC	50	New York. N.Y. ABC a)
780		
WBBM	50	Chicago, Ill. CBS a)
810		
KGO	50	S. Francisco, ABC a)
KCMO	50	Kansas City, CBS a)
WGY	50	Schenectad, NBC a)
WKVM	25	San Juan, P.R. a)
820		
WFAA	50	Dallas, Tex. NBC a)
WBAP	50	Fort Worth, NBC a)
830		
WCCO	50	Minneapolis, CBS a)
840		
WHAS	50	Louisville, Ky. C a)
850		—
WYDE	10	Birmingham, Ala. a
KOA	50	Denver, Colo. NBC a)
WHDH	50	Boston, Mass. a)
WKIX	10LS/5N	Raleigh, N.C. ABC a)
WJW	10LS/5N	Cleveland, Ohio a)
WJAC	10	Johnstown, Pa. N a)
860		
KTRB	10LS/1N	Modesta, Cal. a)
KOAM	10LS/5N	Pittsburg, NBC a)
WOAY	10	Oak Hill, W. Va. D
870		
WWL	50	New Orleans, CBS a)
880		
WCBS	50	New York, N.Y CBS a)
890		
WLS	50	Chicago, Ill. ABC a)
900		
KFRB	10	Fairbanks, Alas. a)
940		
WYLD	10/0.5	New Orleans, La a)
WINZ	50LS/10N	Miami, Fla. a)
WMAZ	50LS/10N	Macon, Ga. CBS a)
KAHU	10	Waipahu, Haw. a)
KIOA	10LS/5N	Des Moines, Iowa. MBS a)
WFNC	10	Fayetteville, N.C. MBS a)
WIPR	10	San Juan, P.R. a)
WCPC	50	Houston, Miss. D
990		
KTKT	10LS/1N	Tucson, Ariz. a)
WHOO	10LS/5N	Orlando, Fla. MBS a)
WIBG	50LS/10N	Philadelphia a)
WNOX	10	Knoxwille, Tenn. CBS a)
KNIN	10LS/1N	Wichita Falls, Tex. MBS a)
WPRA	10	Mayaguez, P.R. a)
WLKW	50	Providence, R.I. D
1000		
WCFL	50	Chicago, Ill. A a)
KOMO	50	Seattle, ABC a)
1010		
KLRA	10LS/5N	Little Rock, A a)
WMOX	10LS/1N	Meridan, Miss. M a)
WINS	50	New York, N.Y. a)
WZRO	1CP25	Jacksonville, Beach, Fla. KBS D
KXEN	50	Festus, St. Louis, D
KRVN	25	Lexington, Nebr. D
WGUN	50	Decatur, Ga. D
KSAY	10	San Franc. Calif. D
KAWA	10	Marlin, Texas-WACO, D – two city operation
WINQ	50	Tampa, Florida, D
1020		
KGBS	50	Los Angeles, Cal. D
KDKA	50	Pittsburg, Pa. a)
1030		
WBZ	50	Boston, Mass. a)
KCTA	50	Corpus Christi, D
KOB	50	Albuquerque. NM

USA

Call	kW	
1040		
WHO	50	Des Moines, NBC a)
1050		
WHN	50	New York, N.Y. a)
1060		
KPAY	10	Chico, Cal. MBS a)
WNOE	50	LS/5N New Orleans, a)
WRCV	50	Philadelphia, NBC a)
1070		
WAPI	50	D/5N Birmingham, Ala. NBC a)
KNX	50	L. Angeles, CBS a)
WIBC	50	LS/10N Indianapolis a)
KFDI	10	Wichita, Kans. ABC a)
WFLI	10	Lookout Mtn, Tenn. a)
WDIA	50	LS/5N Memphis, Tenn. a)
WKOW	10	LS/5N Madison, Wisc. CBS a)
1080		
KSCO	10	Santa Cruz, Cal. a)
WTIC	50	Hartford, Conn. NBC a)
KWJJ	50	/10 Portland, Ore. ABC a)
KRLD	50	Dallas, Tex. CBS a)
1090		
KAAY	50	Little Rock, Ark. CBS a)
WBAL	50	Baltimore, Md. NBC a)
KING	50	Seattle, Wash. NBC a)
1100		
KFAX	50	LS/1N S. Francisco, a)
KYW	50	Cleveland, Ohio. a)
WHLI	10	Hempstead N.Y. D
1110		
KFAB	50	Omaha, Nebr. NBC a)
WBT	50	Charlotte, N.C. CBS a)
KRLA	50	LS/10N Pasadena, Cal. a)
WALT	10	Tampa, Fla. D
1120		
KMOX	50	St. Louis, Mo. CBS a)
1130		
KWKH	50	Shreveport, La. C a)
WCAR	50	LS/10N Detroit, Mich. a)
WDGY	50	LS/25N Minneapolis Minn. a)
WNEW	50	New York, N.Y. a)
1140		
KRAK	50	Sacremento, MCSa)
WMIE	10	LS/5N Miami, Fla. a)
KGEM	10	Boise, Id. ABC a)
KSOO	10	LS/5N Sioux Falls, S. Dak. ABC a)
WRVA	50	Richmond, Va. NBC a)
1160		
WJJD	50	Chicago, Ill. a)
KSL	50	Salt Lake City, CBS a)
1170		
WCOV	10	LS/1N Montgomery Ala. CBS a)
KCBQ	50	LS/5N San Diego, Cal. a)
KLOK	10	L/1N San Jose, Cal. a)
KVOO	50	Tulsa, Okla. NBC a)
WWVA	50	Wheeling, W. Va. CBS a)

Call	kW	
1180		
WHAM	50	Rochester, N.Y. a)
1190		
WOWO	50	Fort Wayne, Ind. a)
KEX	50	Portland, Ore. a)
KLIF	50	LS/1N Dallas, Tex. a)
WANN	10	Annapolis, Md. D
1200		
WOAI	50	San Antonio, Tex. NBC a)
1210		
WCAU	50	Philadelphia, CBS a)
WKNX	10	Saginaw. Mich. D
1220		
WGAR	50	Cleveland, NBC a)
1500		
KBLA	10	Burbank, Cal. a)
WTOP	50	Washington, CBS a)
WJBK	50	LS/5N Detroit, Mich. CBS a)
KSTP	50	St. Paul, Minn. NBC a)
KPIR	10	Eugene, Wash. D
1510		
KALF	10	Mesa, Ariz. D
WLAC	50	Nashville, Tenn. CBS a)
KGA	50	Skokane, Wash. a)
WAUX	10	Waukesha, Wisc. D
1520		
KACY	10	Port Hueneme, Cal. a)
WKBW	50	Buffalo, N.Y. a)
KOMA	50	Oklahoma City, Okla. a)
KGON	50	Oregon City, MBS a)
WFYI	50	Mineola, N.Y. D
1530		
KFBK	50	Sacremento, CBS a)
WCKY	50	Cincinnati, Ohio a)
KGBT	50	Harlengen, Tex. CBS a)
1540		
KPOL	50	L. Angeles, MBC a)
KXEL	50	Waterloo, Iowa. ABC a)
WPTR	50	Albany, N.Y. a)
KCUL	50	LS/1N Ft. Worth, Tex. a)
WJMJ	50	Philadelphia, Pa. D
1550		
KKHI	10	S. Francisco, MBC a)
KOKA	10	LS/0.5N Shreveport, La. a)
WBSC	10	LS/5N Bennetsville, S.C. MBC a)
WBHM	50	Birmingham, Ala. D
KDAB	10	Arvada, Colo. D
KFIF	50	Tucson, Ariz. D
WRIZ	10	Coral Gables, Fla. D
WYOU	10	Tampa, Fla. D
WMOE	50	Mobile, Ala. D
WSMA	10	Smyrna, Ga. D
WJAQ	50	Jackson, Miss. a)
1560		
KPMC	10	Bakersfield, Cal. ABC a)
WQXR	50	New York, N.Y. a)
1580		
WWIL	10	LS/5N Fr. Lauderdale, Fla. a)
KDAY	50	Santa Monica, Cal. D
WPGC	10	Morningside, Md. D
WAXU	10	Georgetown, Ky. D
WPAC	10	Patchogue, N.Y. D
KYND	50	Tempe, Ariz. D

Continental Electronics, USA: M.W.tr's: 250W: WHDF Houghton, Mich, WDXN Chearlesville, Tenn, KDLR Duits Lake, N.D – **1kW:** WHKK Akron, Ohio, KWIL Albany, Oreg, WMIN St. Paul, Minn, AFRTS S. Juan, Puerto Rico, WWJ Detroit, Mich, WISP Kingston, N.C – **5kW:** KLIF Dallas, Texas, WHAY Montgomery, Alab, WVOW Logan, W.V, WWJ Detroit, Mich, KAYO Seattle, Wash, KIMA Yakima, Wash – **5/10kW:** KPAM Portland, Oreg, KPOJ Portland, Oreg, KCBS S. Francisco, Calif, KNX Los Angeles, Calif, KFI Los Angeles, Calif, KSL Salt Lake City, Utah, KMOX St. Louis, Miss, WBBM Chicago, Ill, WCAU Philadelphia, Penna, KDKA Pittsburg, Penna, WSPD Toledo, Ohio, WOR New York, N.Y, WMGM New York, N.Y, KOA Denver, Col, KVOO Tulsa, Okla, WDSM New Orleans, La, KGO S. Francisco, Cal, WAOK Atlanta, Ga, WABC New York, N.Y, KORO Seattle, Wash, KOMO Seattle, Wash, WQAM Miami, Fla, WHOA S. Juan, Puerto Rico, WORA Mayaguez, Puerto Rico, WPRP Ponce, Puerto Rico – **50kW:** WDIA Memphis, Tenn, KRLA, Los Angeles, Calif, WJR Detroit, Mich, WOAI S. Antonio, Texas, KLIF Dallas, Texas, KFI Los Angeles, Calif, WOR, New York, N.Y, WMGM New York, N.Y, KVOO Tulsa, Oklah, KFAX S. Francisco, Calif, KFIF Tucson, Ariz, KEEL Shreveport, La.

INTERNATIONAL BROADCAST STATION KGEI

FI: By donations, non-profit, non-comm. org's-KGEI (the Voice of Friendship) is owned and operated by the Far East Broadc. Co. Inc, Whittier, California.

ADDR: P.O. Box 15, San Francisco, Calif. **Te:** Ly 1-4820. **Cable:** "Febcom-Sfran" – **L.P:** St. Mgr: C. W. Lawrence. Dir. Tec: D. C. Smith.

STATIONS: 9590kc 31.28m – 15240kc 19.69m. 50kW d Latin America.

LATIN AMERICAN SCE: Mo-Fri 22.20–04.30. Sat 22.30–04.00. Sun 23.00–03.00. On 15240kc to 02.30, on 9590kc from 02.30.

N. in English, Portuguese, Spanish: Mo-Fri 22.30–22.45.

English: Mo-Fri 23.15–24.00, 04.15–04.30. Sat/Sun 23.00–24.00.

German: Tues, Thurs 23.00–23.15 – **Japanese:** Mo-Wed 23.00–23.15.

Spanish: D 00.00–04.00(Sat/Sun 03.00). **N:** Every h and half-h from 00.00–03.30. **"Album Filatelico":** Tues, Thurs 01.30. **"Ingles por Radio"** (English by Radio): 00.05, 03.05.

ANN: E. (Sign on): "This is the Voice of Friendship, International broadc. st. KGEI, San Francisco, Calif, the United States of America, owned and operated by the Far East Broadc. Company on a freq. of 15.24Mc in the 19 m.b. (or 9.59Mc in the 31m.b.) KGEI is dedicated to the purpose of promoting good will, better understanding and friendship among the peoples of the free world. "This is the Voice of Friendship" – **INT-SIG:** Sign off with anthem "the Lords Prayer" followed by Nat. Anthem – **V.** by QSL-card (sent on request). Records accepted.

RADIO NEW YORK WORLDWIDE (WRUL).

Operated by International Educational Broadc. Corpo.

FI: by adv – **ADDR:** Worldwide Communication Center, 4 West 58th st. New York City 19, N.Y. **Cable:** WRULINT-224302. **Te:** Plaza 2-3322 – **L.P:** Pres: R. Brent. Vice Pres News-Operations: M. Krauss. Vice-Pres. Business-Sales Development: M. Foster. Dir. Research: M. Garcia. Eng. Language Section Chief: J. Lowry. Prgr. Development: M. Bernam. Sp. Language Section Chief: M. Bomar. Tec. Dir. Studio: J. Garafolo. Transmitter: L. MacDonald. English Broadcasters: J. Lowry, M. Bernam. H. Edell. O. Rose. H. Hart. K. Lowe. Spanish Broadcasters: M. Bomar. T. Arriagada. M. Rosenberg. L. Uncal. A. Carvallo. J. Landajo. and field correspondents in all Latin American Capitals.

FOREIGN SERVICE

STATIONS: WRUL 50/80kW.

kc	m	kc	m	kc	m	kc	m	kc	m
6015	49.88	9520	31.51	9695	30.94	11950	25.10	15440	19.43
6095	49.22	9555	31.40	9710	30.90	15385	19.50	17760	16.89

TO EUROPE in English: 12.00–18.30 on 11950/15385kc; 18.30–19.15 on 9520/11950kc; 19.15–19.30 on 9520kc; 19.30–21.45 on 9520/9710kc. **TO AFRICA in English:** 12.00–19.15 on 17760kc; 19.30–21.45 on 11950kc.

TO LATIN AMERICA in English: 12.00–21.45 on 11950/15440kc; 21.45–22.30 on 11950kc; 22.30–24.00 on 6095/9695kc.

N: ABC R. Network N. at five min's before the h. Also-Worldwide N. Round-up Mo-Fri 15.25, 19.30. Sat/Sun 17.30, 19.25, 21.25 R. New York Worldwide Late N: D 12.00. Mo-Fri 13.55, Sun 23.25.

News Specials: W 12.55 "News Around the World"; Mo-Fri 17.00, 21.00, 23.00 "Chroniscope"; Sat 23.30 "Sun Morning Headlines" Sun 22.55 "Mo Morning Headlines".

Business N: Mo-Fri 21.30, 23.30 Worldwide Investors Digest. Mo-Fri 21.20, 23.45 Business Worldwide – **Sports:** Mo-Fri 13.25, 17.25, 23.25 Sat/Sun 17.25, 22.25 – **Great Moments in History:** Sat 16.00, Sun 20.00, Tues 15.00 – **DXing Worldwide:** Sat 19.40, Tues 15.40 – **Postmark New York:** Sat 19.00, 23.40, Mo 15.40.

Music Worldwide: Mo-Fri 16.00–16.25: Mo Pan American Party. Tues: Folkmusic Worldwide. Wed: Country & Western Worldwide. Thurs: Jazz Worldwide. Fri: Chronicle of Music – Mo-Fri 16.30–16.55: Mo: Vincent Lopez Orchestra. Tues: In the Land of Music (Hollywood).

SOUTH AMERICA
1:50 Mill.
KM
0 500 1000 1500 2000
CENTRAL AMERICA
1:15 Mill.
KM
0 100 200 300 400 500
BRAZIL
MEXICO
CENTRAL AMERICA
VENEZUELA
COLUMBIA
ECUADOR
PERU
BOLIVIA
PARAGUAY
CHILE
ARGENTINA
URUGUAY
BAHAMAS
CUBA
HAITI
PUERTO RICO
JAMAICA
KINGSTON
HABANA
CAMAGUEY
PORT AU PRINCE
SANTIAGO DE CUBA
The West Indies
Leeward Islands
Windward Islands
ANTIGUA
MONTSERRAT
GUADELOUPE
DOMINICA
MARTINIQUE
ST. LUCIA
BARBADOS
ST. VINCENT
GRENADA
TRINIDAD
PORT OF SPAIN
CURACAO
ARUBA
WILLEMSTAD
CORO
CABELLO
CUMANA
MATURIN
MARACAIBO
BARRANQUILLA
CABIMAS
CARACAS
BARQUISIMETO
CIUDAD BOLIVAR
GEORGETOWN
PARAMAIBO
CAYENNE
TRUJILLO
MERIDA
SAN CRISTOBAL
CARTAGENA
CUCUTA
MEDELLIN
MANIZALES
PEREIRA
ARMENIA
CALI
BUCARAMANGA
BOGOTA
CIRARDOT
IBAQUE
NEIVA
BR. HONDURAS
BR. DUTCH GUIANA
FR. GUIANA
MACAPA
BELEM
SAO LUIZ
MARANHAO
TERESINA
RIO GRANDE NATAL
RECIFE
PERNAMBUCO
MACEIO
ARACAJÚ
SALVADOR (BAHIA)
Goias
AMAZONAS
PARNAIBA
FORTALEZA
MANAUS
ESMERALDAS
IBARRA
QUITO
AMBATO
RIO BAMBA
CUENCA
MANTA
BAHIA
GUAYAQUIL
LOJA
PIURA
CHICLAYO
TRUJILLO
HUARAS
CERRO DE PASCO
CALLAO
LIMA
MALDONADO
CUZCO
HUANCAYO
ICA
AREQUIPA
PUNO
LA PAZ
ORURO
SUCRE
COCHABAMBA
SANTA CRUZ
TACNA
IQUITOS
Acre
RIO BRANCO
PORTO VELHO
Guapore
Mato Grosso
CUIABÁ
BRASILIA
GOIANIA
Minas Gerais
PARNAIBA
BELO HORIZONTE
UBERLANDIA
UBERABA
NITEROI
TAUBATE
MARILIA
CAMPINAS
RIO DE JANEIRO
POCOS DE CALDAS
SAO PAULO
SANTOS
CURITIBA
Parana
CHACO
ASUNCION
LA QUIACA
RIVA DAVIAS
FORMOSA
ENCARNACION
POSADAS
CORIENTES
SANTA MARIA
PORTO ALEGRE
FLORIANOPOLIS
ANTOFAGASTA
SALTA
RESISTENCIA
TUCUMAN
SANTIAGO DEL ESTERO
SANTO TOME
CATAMARCA
CONCORDIA
SANTAFE
CORDOBA
S. JUAN
SAN LUIS
ROSARIO
COLONIA
B. AIRES
TACUAREMBO
SALTO
MELO
MONTEVIDEO
LA PLATA
AZUL
MAR DEL PLATA
NECOCHEA
BAHIA BLANCA
VILLA MERCEDES
SAN RAFAEL
SANTA ROSA
VALPARAISO
SANTIAGO
TALCA
CONCEPCION
TEMUCO
VALDIVIA
PUERTO MONTT
NEUQUEN
LOS ANGELES
SAN CARLOS DE BARILOCHE
ESQUEL
C. RIVADAVIA
PUNTA ARENAS
RIO GALLEGOS
STANLEY
Falkland Islands
USHUAIA
MENDOZA
SOUTH PACIFIC OCEAN
SOUTH ATLANTIC OCEAN
Caribbean Sea
QUEZALTENANGO
GUATEMALA
MAZATENANGO
ANTIGUA
GUATEMALA CITY
ZA CAPA
BELIZE
BR. HONDURAS
LA CEIBA
SAN PEDRO SULA
HONDURAS
SANTA ANA
SAN SALVADOR
SAN MIGUEL
GOMAYAGUELA
TEGUCIGALPA
EL SALVADOR
CHINAN DEGA
JINOTEPE
MATA GALPA
LEON
MANAGUA
MASAYA
GRANADA
RIVAS
NICARAGUA
BLUE FIELDS
LIBERIA
SANTA CRUZ
PUNTARENAS
HEREDIA
SAN JOSE
LIMON
CARTAGO
COSTA RICA
CANAL ZONE
DAVID
COLON
PANAMA
SANTIAGO
BALBAO
PENONOME
CHITRE
PANAMA

Wed: Country & Western Worldwide. Thurs: In the Land of Music (Broadway). Fri: Here Come the Big Bands – **Billboard Magazine**: Album Previews: Mo: 18.00, 22.00 (repeat). Popular singles Preview: Wed 18.00, 22.00 (repeat). Hit Parade: Fri 18.00, repeated Fri 22.00, Sat 15.00, 20.00 – **"This World We Live In"**. Mo-Fri 17.30–20.25 – **"Breakfast in New York**: Mo-Fri 12.05–14.55 – **"This is Salt Lake City"**: Mo, Wed 19.40 – **"Mormon Tabernacle Choir"**: Sun 20.30 – **"Hour of Decision** (with Billy Graham): Thurs 18.30, Sat 20.30, 23.00 – **"The Bible Speaks to You"**: 18.40, 23.40 – **"Voice of Prophesy"**: Sun 19.00 – **"Church Service from the Church of the Lord Jesus Christ of the Apostolic Faith in Philadelphia"**: Sun 16.00.

TO LATIN AMERICA in Spanish: 22.00–01.00 on 6015/9555kc; 01.00–04.00 on 6015/6095/9555/9695kc.

N: Mo-Fri 22.30, 23.30, 24.00, 00.30, 01.15 & headlines 1 min. bef. the h. Sat 22.00, 23.00, 24.00, 01.00. Sun 22.00, 24.00, 01.00, 01.30. **"Radar"**: (Re. by correspondents from all over the world, plus music, entertainment): Mo-Fri 22.00–24.00 – **"Prisma Continental"**: (Hemispheric Newsreel of the Air) with direct re. from R. New York's own correspondents in all of Latin American countries): Mo-Fri 01.15 – **"Science and Life"**: Mo 00.45, Sat 22.30 – **"Auto-Club of the air"**: Tues 00.45, Sat 22.45 – **"Arts during the week"**: Fri 00.45, Sat 23.30 – **"Reports from correspondents"**: (by R. New York's own L.A. Correspondents all over the world) W 01.05, 03.10 – **"Voices of the fourth estate"**: (Editorials from world's leading newspapers) W 01.10, 03.15 – **"New York Hit Parade"**: Fri 01.35–03.20, Sat 00.35, Sun 01.05 – **"Mormon church"**: (from Salt Lake City, Utah) Thurs 00.45, Sun 00.45, 03.30 – **"Christian science church"**: Sun 00.15, 02.45 – **"Temple Time"**: Sun 01.45 – **"Formula 3"**: (preview for 00.15 to 04.00 broadc. time): Mo-Fri 24.00.

ANN: E: "This is R. New York Worldwide. You are tuned to WRUL, New York, broadc. to the world on the following frequencies..." – Sp: "Esta es R. Nueva York, WRUL, transmitiendo programas en español desde las cinco de la tarde, hora Standard de Nueva York" – **V.** by QSL-card – Recorded reports (single track only) accepted –

PUB: Write for Prgr-schedule.

WORLD INTER-NATIONAL BROADCASTERS (WINB), INC. Comm. st. which purpose is to promote the God of the Bible and Country.

ADDR: Office & Studios: P.O. Box 8828, Philadelphia, Pa. Tr. P.O. Box 88, Red Lion, Penna – **STATIONS**: WINB: 50kW 11825kc 25.37m – 17720kc 16.93m.

D.PRGR. in English (to Mediterranean, So. Europe, Near East, No. Africa): 18.00–19.45 on 17720kc, 20.00–22.00 on 11825kc – **N**: 20.00, 22.00 – **Music**: 19.30, 21.03 – **Mr. & Mrs. Show**: 20.05, 21.30, 22.05 – **V.** by letter and prgr-schedule.

AMERICAN BROADCASTING CO. (A. Division of American Broadc. Paramount Theatres, Inc.).

ADDR: 7 West 66th Str, New York 23, N.Y. – **Te**: Susquehanna 7-5000.

L.P: Pres. American Broad.-Paramount Theatres and A.B.C.: L. H. Goldensen. Financial Vice-Pres. AB-PT and Executive Vice-Pres. A.B.C.: S. B. Siegel. Vice-Pres. in charge of Press Information for A.B.C.: M. J. Foster. Pres. of the ABC Radio Network: R. R. Pauley.

Owned and operated stations: WABC+FM New York, KABC+FM Los Angeles, KGO+FM San Francisco, WXYZ+FM Detroit, KQV Pittsburgh, WLS Chicago.

COLUMBIA BROADCASTING SYSTEM INC: **ADDR**: 485 Madison Ave, New York 22, N.Y. **Te**: Plaza 1-2345 – **L.P**: Chairman of the Board of Directors: William S. Paley. Pres: F. Stanton. Pres. CBC Radio Division: A. H. Hayes.

Owned and operated stations: WCBS, New York, WBBM, Chicago, KCBS, S. Francisco, KMOX, St. Louis, KNX, L. Angeles, WEEI, Boston, WCAU, Philadelphia – **V.** by QSL-card or letter.

NATIONAL BROADCASTING COMPANY INC: ADDR: 30 Rockefeller Plaza, New York 20, N.Y. – **L.P**: Chmn of the Board: R. W. Sarnoff. Pres: R. E. Kintner. Senior Exec. Vice Pres: D. C. Adams. Exec. Vice Pres: NBC Owned Stations & Spot Sales Division: R. W. Welpott. Exec. Vice Pres. TV Network: W. D. Scott. Vice Pres. R. Network: W. K. McDaniel. Vice Pres. Enterprises Division: G. A. Graham, Jr. Vice Pres. Corporate Affairs: R. Kasmire. Dir. Internat. Enterprises: J. M. Klein. **Radio Stations**: WNBC/WNBC-FM, 30 Rockefeller Plaza, New York 20, N.Y. **Te**: Circle 7-8300. Vice Pres, Gen. Mgr: T. Walworth – WRC/WRC-FM, 4001 Nebraska Ave, Washington 16. D.C. **Te**: Emerson 2-4000 Vice Pres, Gen. Mgr: J. Goodfellow – WJAS/WJAS-FM, 1459 Crane Ave, Pittsburgh 20, Pa. **Te**: Locust 3-5238, Gen. Mgr: S. J. Rooney – WMAQ/WMAQ-FM, Merchandise Mart, Chicago 54, Ill. **Te**: Superior 7-8300. Vice Pres, Gen. Mgr: L. E. Yoder – WRCV, 1619 Walnut Str. Philadelphia 3, Pa. **Te**: Locust 4-3700, Vice Pres, Gen. Mgr: R. W. Welpott – KNBR-AM-FM/KNBC/KNBC-FM, 420 Taylor, S. Francisco 2, Cal. **Te**: Greystone 4-8700. Vice Pres, Gen. Mgr: Th. C. McCray.

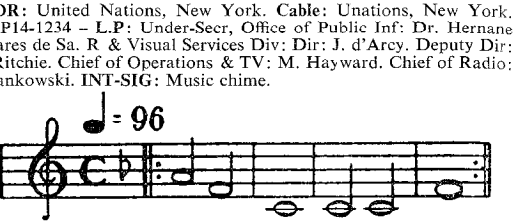
R. STATION WLVL, P. O. Box 1644, Louisville, Ky – **L.P**: Mgr. St. A. Cooler,

Advertisement: Home studio-office, ORBIT RADIO, international tape network, specializing in international music for USA stations and American program series for overseas exchange with all countries.

UNITED NATIONS

UNITED NATIONS RADIO

ADDR: United Nations, New York. **Cable**: Unations, New York. **Te**: P14-1234 – **L.P**: Under-Secr, Office of Public Inf: Dr. Hernane Tavares de Sa. R & Visual Services Div: Dir: J. d'Arcy. Deputy Dir: D. Ritchie. Chief of Operations & TV: M. Hayward. Chief of Radio: P. Jankowski. **INT-SIG**: Music chime.



ANN: "This is the "United Nations". This introductory phrase is used in all official UN prgrs. in all of the languages concerned Message to listeners: The R. & Visual services Division is anxious to establish contact with as many listeners as possible and will gladly acknowledge all communications. Upon request, new correspondents are sent a prgr. sched. and some general information about the United Nations and the Specialized Agencies. Correspondence and requests for copies of the schedule of UN broadcasts should be addressed to the Director of the nearest UN Information Centre. These are located in Accra, Algiers, Asuncion Athens, Beirut, Belgrade, Bogota, Buenos Aires, Cairo, Colombo, Copenhagen, Dar es Salaam, Djakarta, Kabul, Karachi, La Paz, Lima, Lomé, London, Manila, Mexico City, Monrovia, Moscow, New Delhi, Paris, Port-of-Spain, Port Moresby, Prague, Rabat, Rangoon, Rio de Janeiro, Rome, San Salvador, Sydney, Teheran, Tokyo, Tunis, Usumbura, Washington, Geneva, Addid Ababa, Bangkok, Santiago.

Request for copies of the sched. of UN broadc, which can be heard in the United States should be addressed to: Radio and Visual Services Division, United Nations, New York.

BROADCASTS FROM THE UNITED NATIONS B=Bethany; BB=Boundbrook; D=Delano; G=Greenville; H=Honululu; M=Monrovia; P=Philippines; T=Tangier.

To We, Ce & So. Europe (Mo-Fri): 17.00–18.00 on 15305,kc (G) – N in French, English, French, Arabic, German (for Austria), 18.00–18.30 on 9760(T)/11875(BB)/15250, 21610(B)/15305, 17830kc (G) – N. in Italian, Greek, Turkish, Spanish (Fri).

To Ea. Africa (Mo-Fri) 18.30–18.45 on 15350kc (M) – N. in English, Swahili. This prgr. is transmitted to M on 11805, 15240kc (G).

To We. & Ce. Africa (Mo-Fri) 18.45–19.00 on 11805, 15240kc (G) – N. in French, English.

To Ea. Latin America (Tues-Sat): 00.30–01.00 on 6155,9530(B)/11890kc (G) – Spanish (N. Prgr.); 01.00–01.15 on 11830/15325kc (G) – N. in Portuguese.

To We. Latin America (Tues-Sat): 01.45–02.00 on 11770kc (D) – N. in Spanish.

To Mid. East, So. Europe (Tues-Sat): 03.30–04.00 on 7110kc (T) – N. in English, Hebrew, Amharic, Italian, Serbo-Croat. This prgr. is transmitted to T on 6175, 9700kc (G).

To C, So. Africa (Tues-Sat): 05.30–06.00 on 6190, 9560kc (G) – N. in French, English.

To We. Africa (Tues-Sat): 07.00–07.30 on 6190, 9560kc (G) – N. in French, English.

To Asia, Far East (Tues-Sat) 02.00–02.15 on 15250, 17745kc (P) Prgr. in English for Malaya, Ceylon (this prgr. is transmitted to P on 17765kc (D) at 01.30–01.45) – 07.30–07.45 on 6185, 9545kc (D) Prgr. in English for Australia/N. Zealand (this prgr. is repeated from H on 9650kc at 08.45–09.00) – 10.30–11.00 on 15155kc (P). N, Prgr. in English, N. in Thai (this prgr. is transmitted to P at 06.30–07.00 on 6185, 9545kc (D).

10.30–10.45 on 15250kc (P). N. in Chinese. (this prgr. is transmitted to P at 07.00–07.15 on 6185, 9545kc (D). 10.45–11.00 on 15250kc (P). Prgr. in Indonesian (this prgr. is transmitted to P at 07.15–07.30 on 6185, 9545kc. (D)

Broadcast of Meetings of the General Assembly and the Security Council when in session.

1) To Europe, M. East (English/French)

AM Meeting: 15.30–18.00 on 15195kc (B).

MP Meeting: 20.00–23.00 on 11730kc (B), 22.15–01.30 on 9700 kc (G), 22.45–01.30 on 5965kc (G).

2) To We, C. Africa (English/French)
AM Meeting: 15.30–18.00 on 17750kc (B).
PM: Meeting: 20.00–23.00 on 15390kc (B).
3) To Latin America (Spanish)
AM Meeting: 15.30–17.00 on 15375kc (G).
PM Meeting: 20.00–22.00 on 15375kc (G) 21.00–01.30 on 9640kc (G).
Prgr's from the United Nations are broadcast by st's in more than 100 countries and territories. The times of these broadcasts may be ascertained from local newspaper or from the stations concerned – R. st's in the United States and Canada receive the prgrs. direct by line from the United Nations Headquarters or by recording – The R. and Visual Services Division prepares and distributes recorded prgr.s in Amharic, Arabic, Burmese, Duri, Dutch, English, Finnish, French, German, Greek, Hebrew, Icelandic, Hindi, Indonesian, Italian, Persian, Polish, Portuguese, Pushtu, Serbo-Croat, Sinhalese, Spanish, Tagalog, Thai, Turkish and Urdu – Letters from Listeners are welcome.
New listeners are sent some general information about the United Nations upon request – Correspondence and request for particulars of the United Nations broadcasts from Headquarters should be addressed to: Radio and Visual Services Division, United Nations, New York.

CENTRAL AMERICA

BAHAMAS (British)

L.T: GMT ÷ 5 h – Pr.L: English.

BAHAMAS BROADCASTING AND TELEVISION COMMISSION (Go.)

ADDR: P.O. Box 1347, Nassau. Te: 4623. Cable: Broadcast – L.P: Mgr: R. Bethel. Dir. Tec: L. Cartwright. Dir. Prgr: K. Jackson.
STATION: ZNS 1540kc 195m 10kW – ZNS2 1240kc 242m 0.25kW.
HOME SCE: On 1540kc: 11.00(Sun 12.00)–05.00. N: 13.15, 18.15, 00.15. On 1240kc: W 22.30–04.00.
ANN: "This is st. ZNS, Nassau"; "This is ZNS2, The Voice of New Providence" – V. by letter.

BARBADOS (British)

L.T: GMT ÷ 4 h – Pr.L: English.

BARBADOS REDIFFUSION SERVICE LTD.

FI: By adv – ADDR: River Road, Bridgetown. Cable: Rediffusion. Te: 5126 – L.P: Gen. Mgr: Col. R. W. R. Oliver. Eng: G. Duesbury.
D.PRGR: 09.58–03.03. N (BBC): 11.00, 16.00, 21.00, 23.00, 03.00.
Barbados Redif. Sce. participates in We. Indies Net. on s.w. via Messrs. Cable & Wireless (W.I.) during special events like horse racing and cricket matches. The Redif. Sce's will operate on one of the following frequencies via Cable & Wireless: ZNX20 5040, ZNX32 7547 and ZNX49 11015kc.

COSTA RICA

L.T: GMT ÷ 6 h – Pr.L: Spanish.

DEPARTEMENTO CONTROL NACIONAL DE RADIO

ADDR: Apt. 3483, San José. Cable: Ranac. Te: 7339 – L.P: Dir: L. H. Andrés.

EMPRESARIOS RADIODIFUSORES ASOCIADOS (ERA).

ADDR: Apt. Postal 111, San José – L.P: Pres: R. Barahona Gomez.
STATIONS: All st's comm. exc. 3), 22) (Rlg), 15), 38) (Cultural).
Short Waves: Call: TI——. [1] East & West. [2] North & South.

Call	kc	m	kW	Name	H of tr.
1) Q	5954	50.39	1	R. Casino, Puerto Limon	11.55–06.00
2) HBG	6006	49.95	1	R. Reloj, San José	12.00–06.00
3) FC	6037	49.69	0.3d[1]	Faro del Caribe, San José W 11.20–19.00, 23.30–04.00. Sun 12.30–16.45, 20.00–04.00	
4) SRHB2	6075	49.38	1	R. Popular, San José	12.00–05.00
5) GPH	6215	48.27	1	R. Monumental, San José	11.00–06.00
6) RICA	9615	31.20	3	La Voz de la Victor, S.José	11.00–07.00
3) FC	9645	31.10	2d[2]	Faro del Caribe, San José W 11.20–19.00, 23.30–04.00. Sun 12.30–16.45, 20.00–04.00	

Medium Waves: Call: TI——. °=Short Wave.

Call	kc	kW	Call	kc	kW	Call	kc	kW
7) JJH	550	1.5	12) RA	750	1	18) R	925	3
8) JC	575	1	13) W	775	4.5	19) LC	950	1
6) RICA	°625	10	5) GPH2	800	3.5	20) RS	975	4
5) BAS	°650	3.5	14) OS	825	1.5	21) CEC	1000	1
10) U	675	1	15) UCR	850	1	22) AC	1025	2
2) HB	°700	2	16) SS	875	1.3	23) RH	1050	1
11) LX	725	1	17) CS	900	6	3) FC	°1075	10
24) EM	1100	1	28) RE	1275	1	35) MMC	1450	1
4) SRHB	°1125	1	29) SBJ	1300	2	36) HCJ	1475	1
25) SM	1150	1	30) NN	1325	1	37) RU	1500	1
11) CA	1175	2	31) WW	1350	1	38) EEAW	1525	1
1) Q	°1200	1	32) MAR	1375	1	39) MET	1550	1
26) BSD	1225	1	33) LG	1400	2	40) JJC	1575	1
27) ALC	1250	1	34) CJ	1425	1	41) ACA	1600	1

Short Waves:
1) Apt. 287, Puerto Limon – L.P: Dir: L. Villalobos. V. by letter.
2) Apt. 341, San José – L.P: R. Barahona G. V. by letter.
3) Apt. 2710, San José. Te: 1250 – L.P: Mgr. F. Cabezas B, Dir. Tec: P. Smith, Dir. Prgr: W. Wortmann – D.PRGR: On all fq's: Spanish: All prgr's in panish exc. D 03.00–04.00: English; German: Fri 03.00–03.15. Request Prgr: Sat. 01.00–02.45, Tues, Thurs, Sat: 16.00–17.00. ANN: "This is TIFC, the Lighthouse of the Caribbean in San José, Costa Rica". Sp: "TIFC, FARO del Caribe en San José, Costa Rica". V. by QSL-card – PUB: Prgr. sched. free on request.
4) Apt. 341, San José. Te: 5607 – L.P: Dir: R. Barahona. Dir. Tec: A. Morales R. – D.PRGR: N. every h on the h – ANN: "Emisoras de R. Excelsior desde San José, Costa Rica, América Central" – V. by QSL-card or letter. Re. in Sp, E.
5) Apt. 800, San José (TIGPH-2: Nueva Alma Tica) – L.P: Dir. L. Pinto S. V. by letter.
6) Apt. 3611, San José. Te: 3737. Cable: La Victor – L.P: Dir. Gen: C. E. Moses. Dir. Tec: A. Alfaro – D.PRGR: N. every half h and 12.00, 17.00, 21.00, 03.00 – ANN: "La Victor de Costa Rica, La Voz de la Victor, R. Internacional de Costa Rica" – V. by letter.
Medium Waves: D 12.00–05.00 exc. where indicated.
7) R. Progreso, Apt. 122, Alajuela. L.P: Dir: E. Martinez.
8) Radiopolis, Apt. 854, San José. L.P: J. Casto C.
9) R. Selecta, Apt. 4666, San José – 10) R. Musical, Apt. 854, San José.
11) R. Columbia, Apt. 708, San José (TICA: Apt. 708, Puntarenas).
12) Radiolandia, Apt. 2525, San José. L.P: Dir: R. Aguilar V.
13) R. City, Apt. 835, San José. L.P: Dir: A. Múrolo C. V. by letter. Re. in E. – 14) R. Titania, Apt. 512, San José.
15) R. Universitaria, San Pedro. L.P: Dir: C. Salazar H. Dir. Tec: A. Mora R. D.PRGR: 14.00–04.00 (Classical music only). V. by letter – 16) La Voz del Tropico, Apt, 914, San José.
17) La Voz de America, Apt. 517, San José.
18) Cadena Musical, Apt. 854, San José. L.P: J. Castro C.
19) R. Hispana, Cartago – 20) R. Athena, Apt. 208, San José.
21) R. Cima, San Ramón. L.P: Dir: C. E. Córdoba.
22) R. Fides, Apt. 1933, San José. L.P: Dir: G. Jimenez A. Dir. Tec: A. Lizano. D.PRGR: 11.00–04.15. N: 17.00. ANN: "TIAC, Radio Fides, Emisora Catolica de la Iglesia de Costa Rica".
23) R. El Mundo, Apt. 1339, San José.
24) Columbia Canal 4, Apt. 708, San José. L.P: C. A. McAdam.
25) Monumental Canal Dos, Apt. 800, San José. L.P: L. P. Saborío.
26) R. Victoria, Cartago – 27) R. Universal, Apt. 3202, San José.
28) R. Emmaus, Coronado. L.P: Dir. Gen: C. H. Rodriquez Q. Dir. Tec: A. D. Romero. D.PRGR: 11.50–03.15.
29) R. Libertad, Apt. 4075, San José.
30) R. Nandayure, Tilarán, Gte. L.P: Dir: H. Reuben A.
31) R. Centro, Puntarenas – 32) R. Tropical, Heredia.
33) R. Cariari, Limón – 34) R. Sinai, San Isidro del General.
35) R. Golfito, Puerto Golfito. V. by letter.
36) R. Regional, San Carlos. V. by letter. F.PL: Sw-st. 49 mb.
37) R. Union, Liberia Gte – 38) R. Turrialba, Turrialba.
39) Servicio Meteorológico, Minist. Agricultura, San José.
40) La Voz de Guanacaste, Liberia.
41) La Voz de Costa Rica, San José. L.P: Dir: A. Cespedes A.

CUBA

L.T: GMT ÷ 5 h – Pr.L: Spanish.

MINISTERIO DE COMUNICACIONES

Direccion General de Telecomunicaciones.
ADDR: Plaza de la Revolúción "José Martí", La Habana.

INSTITUTO CUBANO DE RADIODIFUSION,

Edif Radiocentro, Ly 23, Vedado, Habana.

RADIO HABANA CUBA

ADDR: Apt. Postal 7026, Habana.
STATIONS: 10/100kW.

kc	m	kc	m	kc	m	kc	m	kc	m
5975	50.21	9565	31.36	11770	25.49	15135	19.84	15340	19.56
5990	50.08	9625	31.17	11840	25.42	15190	19.75	17855	16.80
6015	49.88	9655	31.07	11865	25.34	15210	19.72	17875	16.78
6060	49.50	9675	31.01	11880	25.28	15230	19.70	21460	13.98
6100	49.18	9765	30.72	11900	25.21	15270	19.65	21600	13.89
6135	48.90	11760	25.51	11970	25.06	15315	19.59	21630	13.87

Brown Boveri, Switzerland: delivered 2 × 10, 2 × 100kW sw-tr's.
Continental Electronics, USA: delivered 1kW mw-tr. Habana (R. Mambi), 10kW mw-tr. (CMZ).

Cuba – Dominican Republic

FOREIGN SERVICE:

Time	Language	kc	Area
02.00–03.00	Creole	6060	Caribbean
03.00–06.00	English	6135	No. America
04.30–05.00	French	6135	No. America
06.30–07.30	Spanish	6100	Mediterranean
19.00–20.30	Spanish	11840	Mediterranean
19.00–20.20	French	11865	Europe
20.20–21.40	English	11865	Europe
20.30–21.10	Arabic	11840	Mediterranean
21.10–21.40	French	11840	Mediterranean
21.00–22.00	English	15340	So. America
23.00–24.00	Portuguese	15340	So. America

Spanish (for No, Ce. & So. America): 11.00–02.20, 02.30–06.00 on 15340kc; 11.00–18.30, 22.00–03.00 on 6135kc; 11.00–12.30 on 17855kc; 12.40–15.30, 1540–1830 on 21630kc; 22.00–06.00 on 9765kc; 03.00–06.00 on 6060kc.

ANN: "Aqui R. Habana Cuba" – V. by QSL-card and letter.

Medium Waves:

Call	kc	kW	Call	kc	kW	Call	kc	kW	Call	kc	kW
CY[1]	550	2.5/15	JY[6]	760	1	CF[1]	910	10	KS[11]	1070	1
KM[2]	560	5	DC[2]	770	1	GX[12]	910	1	FA5	1100	1
HI[3]	570	10	HB[7]	780	1	JL[5]	920	10	HM[3]	1130	1
W[1]	590	15/25	CH[1]	790	10	AQ[14]	920	1	BQ[1]	1160	1/5
KV[2]	600	2.5	JS[6]	800	1	KN[4]	930	1	KB[4]	1170	1
KU[4]	630	2	KL[4]	800	2	BF[1]	950	10	HK[10]	1210	1
HQ[3]	630	15	CU[1]	820	1/5	JN[5]	960	1	CI[1]	1260	5
Q[1]	640	5/50	BZ[1]	830	1	KD[2]	970	1	JC[5]	1270	1
CU[1]	660	1/5	AN[14]	840	1	CK[1]	980	5	HA[3]	1280	1
KP[2]	670	1	KC[4]	850	1	JG[5]	1000	1	JQ[13]	1300	1
JE[5]	680	1	BL[1]	860	1/15	BF[1]	1010	10	HO[3]	1310	1
BC[1]	690	50	JB[5]	880	1	HS[8]	1020	1	DA[4]	1320	1
CA[1]	730	10	AG[9]	880	1	JR[5]	1030	1	JF[5]	1340	1
KJ[2]	740	10	HD[3]	890	1	CX[1]	1040	0.25/10	HC[3]	1410	1
CD[1]	760	10	JV[6]	900	1	AB[14]	1070	5			

[1] Habana; [2] Holguin; [3] Sta. Clara; [4] Stgo. de Cuba; [5] Camaguay; [6] Ciego de Avila; [7] Sancti Spiritus; [8] Cabarien; [9] Concolación del Sur; [10] Cruces; [11] Guantanamo; [12] Matanzas; [13] Nuevitas; [14] Pinar del Rio.

DOMINICAN REPUBLIC

L.T: GMT÷5 h – Pr.L: Spanish.

DIRECCION GENERAL DE TELECOMUNICACIONES

ADDR: Santo Domingo. **Cable:** Telecom. **Te:** 22244 – **L.P:** Dir. Gen: T. H. Cartinas C.

STATIONS: Approx. 11.00–05.00 (exc. where indicated). All comm.

Short Waves: Call: HI—. *=inactive. P=Puerto. Sto=Santo.

	Call	kc	m	kW	Name and h of tr.
1)	AU	*3205	93.60	0.5	Broadc. Tropical, P. Plata
2)	DB	*3225	93.05	1	R. Libertad, Santiago: 11.00–03.00
3)	RM	3265	91.87	1	R. Sol, Higuey: 12.00–03.00
4)	SD	3285	91.32	7.5	R. Sto. Domingo: 10.55–05.02
5)	BA	3305	90.77	1	Emis. Unidas, Santo Domingo
6)	UA	3325	90.23	20	R. Caribe, Sto. Domingo: 10.55–04.30
7)	BD	3355	89.42	0.25	La Voz de la Romana, Romana
8)	AZ	3365	89.15	1	R. Santiago: irr.
9)	DA	3385	88.63	0.6	R. Hit Musical, Santiago: W 11.00–04.00 Sun 13.00–01.00
10)	AS	4780	62.76	1	Onda Musical, Sto. Domingo: 11.00–05.00
11)	FF	4840	61.98	1	La Voz del Atlantico, P. Plata
12)	BC	4860	61.73	0.25	La Voz del Progreso, San Francisco de Macoris: 11.00–03.00
13)	JP	4880	61.48	1	R. Comercial, Sto. Domingo
14)	N	4910	61.10	1	R. HIN, Sto. Domingo
15)	CV	*4930	60.85	0.6	La Voz del Biran, Barahoma
16)	CN	4960	60.48	1	R. Antillas, Sto. Domingo
17)	CK	4980	60.25	0.25	Ondas del Yaque, Santiago
18)	MS	*5010	59.88	1	R. Cristal, Sto. Domingo
19)	BB	5030	59.64	1	La Voz del Papagayo, La Romana
20)	L	*5055	59.36	0.5	La Voz del Tropico, Sto. Domingo
4)	SD	5970	50.25	7.5	R. Sto. Domingo: 10.55–04.35
21)	HD	6025	49.79	0.1	La Voz de Oriente, San Pedro de Maco.
8)	AZ	6060	49.50	0.5	R. Santiago: 11.00–03.00
2)	DB	6075	49.38	0.25	R. Libertad, Santiago
6)	UA	6090	49.26	1	R. Caribe, Sto. Domingo: 10.55–04.30
22)	Z	6110	49.10	1	Broadc. Nacional, Sto. Domingo: 11.45–04.30
23)	CB	6120	49.02	0.5	R. dif. HICB, Santiago
24)	G	*6130	48.94	0.25	R. dif. HIG, Sto. Domingo
1)	AU	6190	48.47	0.1	Broadc. Tropical, P. Plata: 11.00–03.00
6)	UA	9505	31.56	50	R. Caribe, Sto. Domingo: 10.55–04.30a)
24)	G	*9590	31.28	0.25	R. dif. HIG, Sto. Domingo

a) reported on 9485kc irr.

Medium Waves: Call: HI—. °=Short Wave.

Call	kc	kW	Call	kc	kW	Call	kc	kW
18) MS	°570	1	4) SP	°620	10	29) AM	660	2
25) BJ	590	1/0.25	27) AF	630	1	30) BQ	670	1/0.25
26) AB	590	0.5	28) AT	650	5	31) AW	690	5
32) DC	700	1	16) CN	°1120	1	22) XZ	1350	1
33) AQ	720	!	39) RL	1130	1	4) SD	1360	1/0.5
22) Z	°740	0.5/0.1	10) AS	°1150	1	6) UA	1370	1
34) MD	760	0.5	40) BE	1180	1/0.25	4) SD	1380	1
20) L	°790	5	41) DV	1190	0.5	6) UA	1390	1
8) AZ	°820	1/0.1	14) N	°1220	1	47) AL	1400	0.25
25) BJ	830	5/1	25) BJ	1230	1/0.25	8) AZ	1410	0.5
6) UA	°860	5	15) CV	°1240	0.25	48) AE	1420	1
35) PJ	890	1/0.25	12) BC	°1250	1/0.1	49) AA	1440	1
5) BA	°910	0.5	42) T	1260	0.25	50) AK	1440	0.25
17) CK	°920	2.5	6) UA	1270	1	51) AC	1450	0.25
24) G	°950	1	43) VM	1290	1	52) AR	1450	0.2
11) FF	°960	5	44) KQ	1300	1	53) AN	1460	0.5
36) SA	980	0.75	1) AU	°1300	2	54) AG	1470	0.5
13) JP	°1020	5	45) AV	1310	0.5	55) AH	1490	0.25
23) CB	°1050	1/0.1	6) UE	1310	1	56) AP	1490	0.25
25) BJ	1060	1/0.25	21) HD	°1320	1	57) AJ	1590	1
37) BF	1070	1/0.25	2) DB	°1330	5	58) BS	1600	1
38) MC	1100	0.5	46) PT	1340	0.25	9) DA	°1600	1

Short Waves:

1) Ca. Beller, P. Plata – **L.P:** Dir: J. Rojas – **V.** by QSL-card.

2) Máximo Gomez 14, Santiago. **Te:** 2924 – **L.P:** Dir: A. Vanderhorst – **Ann:** "Desde Santiago, en la República Dominicana transmite R. Libertad, Sintoniá perfecta en todo el pais".

3) Ca. Altagracia 64, Higuey. **Te:** 43 – **L.P:** R. A. Morales S.

4) Ca. Dr. Tejada Florentino 8, Sto. Domingo. **Cable:** Dominicana. **Te:** 2-3191 – **L.P:** Dir. Gen: J. C. Martínez – **D.Prgr: N:** 11,00, 15.00, 19.00, 21.00, 03.30. **English:** 02.00–02.15 – **Ann:** "Al Servicio del progreso y la cultura en general, transmite R. Santo Domingo desde Santo Domingo, Distrito Nacional, Capital de la Rep. Dominicana" – **V.** by QSL-card – **Relay st's:** 1360 Santiago, 1380 La Vega.

5) Edif. Ocaña, Luperón 17, Sto. Domingo – **L.P:** Dir: P. Julio S.

6) Centro de los Héroes de Constanza, Sto. Domingo. **Te:** 3-1146 – **L.P:** Dir: H. Inchaustegui C – **Ann:** "Desde Sto. Domingo, Ciudad Primada de América, Capital de la República Dominicana, transmite R. Caribe" – **V.** by QSL-card – **F.Pl:** English.

7) Castillo Marquez 28, altos, La Romana – **L.P:** Dir: N. Mariñez – **Ann:** "Transmite HIBD, la Voz de la Romana..."

8) 30 de Marzo 27, Santiago. **Te:** 3300 – **L.P:** Dir: L. Felipe Moscoso. Dir. Tec: J. E. Macdougal – **D.Prgr: N:** 16.30, 22.45 – **Ann:** "Circuito de Emisoras de R. Santiago, Ondas corta y larga, 89.2Mc. Frecuencia Modulada, en Santiago, República Dominicana" – **V.** by QSL-card. Re. in Sp, E.

9) 30 de Marzo 35, Santiago. **Cable:** Maja. **Te:** 3246 – **L.P:** Dir. Gen: M. A. Jorge A – **D.Prgr:** 11.00, 22.00 – **Ann:** "R. Hit Musical, HIDA, 1600 y 3385kc, Santiago de los Caballeros, Rep. Dominicana" – **V.** by QSL-card.

10) Palo Hincado 48, Sto. Domingo. **Te:** 2-6129 – **L.P:** Dir: R. Pacheco – **D.Prgr: N:** 01.30 – **V.** by letter.

11) Ca. Comercio 21, P. Plata. **Te:** 567 – **L.P:** Dir: D. Brugal Alfau.

12) P.O. Box 267, San Francisco de Macoris. **Te:** 2845 – **L.P:** Dir. Gen: J. Raposo P – **D.Prgr: N:** 01.00 – **Ann:** "Por la Cultura del Pueblo y la Prosperidad de la Patria, transmite La Voz del Progreso desde San Francisco de Macoris" – **V.** by QSL-card.

13) Edif. Armenteros, El Conde 24, Sto. Domingo.

14) Centro de los Héroes de Constanza, Sto. Domingo. **Te:** 3-1021 – **L.P:** Adm. Dir: J. Felix G. Dir. Tec: J. L. Martin C – **D.Prgr: N:** 12.05, 23.35, 04.00 – **Ann:** "R. HIN desde la Feria de la Paz" – **V.** by QSL-card. Re. in Sp, E.

15) Apolinar Perdomo 1, Barahona. **Te:** 101 – **L.P:** Dir: E. Lama – **Ann:** "R. Barahona, La Voz del Birán..."

16) Edif. Jaar, Sto. Domingo. **Te:** 9-8728 – **L.P:** Dir: M. Zaglul.

17) Ca. El Sol Esq. 30 de Marzo, Santiago. **Te:** 2144 – **L.P:** Dir. Gen: R. Candelario Llenas. Dir. Tec: L. Silverio – **D.Prgr: N:** 11.00 – **Ann:** "Transmite Ondas del Yaque, desde Santiago de los Caballeros en la República Dominicana" – **V.** by QSL-card – **F.Pl:** 5kW.

18) Edif. Armenteros, El Conde 24, Sto. Domingo. **Te:** 2-1577 – **L.P:** Dir: M. Báez A – 19) Casa P. Rico, La Romana – 20) Ca. Abreu 30, Sto. Domingo. **Te:** 2-2370 – **L.P:** Dir: P. Justiniano – **V.** by QSL-card – 21) Duarte 30, San Pedro de Macoris. **Te:** 888 – **L.P:** Dir: F. M. Donastorg – **V.** by QSL-card – 22) Edif. Copello, Apt. 210, Sto. Domingo. **Te:** 2-2839 – **L.P:** Dir: Ing. F. Hatton – **Ann:** "Transmiten las Emisoras Nacionales HIZ desde Sto. Domingo, capital de la República Dominicana".

23) P.O. Box 454, Santiago de los Caballeros. **Te:** 2939 – **L.P:** Dir. Gen: J. L. Sánchez. Dir. Tec: J. B. Sánchez – **V.** by QSL-card.

24) Av. Mella 144, Sto. Domingo. **Te:** 2-2936 – **L.P:** Dir: A. Cordero P.

Medium Waves:

25) **Editora del Caribe, Emis. HIJB,** C. Por A, Santo Domingo.

26) **Emis. HIAB,,** Apt, 17, P. Plata – **L.P:** Dir: Lic. J. Mendez.

27) **Emis. HIAF,** Monte Cristy – **L.P:** Dir: R. O. Moscoso Cordero.

28) **Emis. HIAT**, Sto. Domingo – **L.P:** Dir: E. A. Pérez.
29) **Emis. HIAM**, Santiago – **L.P:** M. Tulio Cepeda.
30) **Emis. HIBQ**, Sto. Domingo – **L.P:** Dir: J. Espinal Martinéz.
31) **Emis. HIAW**, Sto. Domingo – **L.P:** Dir: R. Aracena.
32) **R. Mao**, 27 de Febrero 71, Valverde – **L.P:** Dir: T. Pujols S.
33) **Emis. HIAQ**, Santiago – **L.P:** Dir: A. Perez – 34) **R. Tamboril**, Pena – 35) **Emis. HIPJ**, Sto. Domingo – **L.P:** P. Justiniano P.
36) **R. Cibao**, Benito Moción 17, Santiago – **L.P:** Dir: C. Pou.
37) **Emis. HIBF**, Sto. Domingo – **L.P:** Dir: M. E. Baez Asunción.
38) **R. Programa Quisqueya (R.P.Q.)**, Edif. Jaar, Sto. Domingo. **Te:** 9-7770 – **L.P:** Dir: V. M. Furment Uribe – 39) **R. Exitos**, 16 de Agosto 129, Santiago – **L.P:** Dir: R. D. de la Rosa. **V.** by letter.
40) **Emis. HIBE**, Sto. Domingo – **L.P:** Dir: M. María J.
41) **R. Santa Maria**, Sto. Cerro, La Vega – **L.P:** Dir: P. Wenceslao G.
42) **R. Mil**, Edif. Jaar, Sto. Domingo – **L.P:** Dir: J. B. Jimenez M.
43) **R. Bonao**, Ca. Duarte Esq. Bonao – **L.P:** Dir: J. Aquino T.
44) **R. Radio**, Edif. El Palacio, Apt. 209, Sto. Domingo.
45) **R. Bani**, Ca. Uladislao Gonzalez 12, Bani.
46) **R. San Francisco**, 27 de Febrero Esq. Billini, San Francisco de Macoris – **L.P:** Dir: V. Ferrer T.
47) **Ondas del Valle**, Ca. Restauración 2, La Vega – **L.P:** Dir: D. V. de Moya – 48) **R. Tricolor**, Edif. Ocaña, Sto. Domingo – **L.P:** Dir: H. Hernandez Llaverías – 49) **R. San Juan**, Capotillo 106, San Juan de la Maguana – **L.P:** Dir: Dr. O. Cucurullo R – 50) **Emis. HIAK**, Sto. Domingo – **L.P:** Dir: M. A. Fiallo Ceara.
51) **R. Salcedo**, Ca. Duarte, Salcedo – **L.P:** Dir: P. M. Bencosme Guzmán – 52) **Emis. HIAR**, Hotel San Cristóbal – **L.P:** Dir: E. Alberti T – 53) **Emis. HIAN**, Hato Mayor – **L.P:** Dir: E. F. Astacio.
54) **Emis. HIAG**, Santiago – **L.P:** Dir: L. Augosto Atiles.
55) **R. Quisqueya**, Arzobispo Meriño 83, Sto. Domingo – **L.P:** Dir: F. Cruz – 56) **R. Gabino**, Ca. Caonabo 81, Moca – **L.P:** Dir: G. Nuñez.
57) **Emis HIAJ**, Sto. Domingo – **L.P:** Dir: L. Bolivar Rosario S.
58) **Emis. HIBS**, San Pedro de Macoris – **L.P:** Dir: B. A. de Soto.

EL SALVADOR

L.T: GMT÷6 h – **Pr.L:** Spanish.

GOVERNMENT DEPT. FOR BROADCASTING

ADDR: Ministerio del Interior, Palacio Nacional, San Salvador – **L.P:** Ministro del Interior: Col. F. Sanchez H.

ASOCIACIÓN SALVADOREÑA EMPRESARIOS RADIODIFUSIÓN

ADDR: Apt. Postal 720, San Salvador – **L.P:** Pres: M. Flores.
STATIONS: All st's comm. exc. R. Nacional.
Short Waves: Call: YS––. *=inactive.

	Call	kc	m	kW	Name
1)	CB	4840	61.98		La Voz del Pacifico, Sonsonate
2)	W	*5985	50.13	1	R. Santa Ana
3)	S	6010	49.92	5	R. Nacional de El Salvador, San Salvador
4)	C	*6096	49.21	1	Ondas Populares y Deportivas, San Salv.
5)	P	*6150	48.78	0.3	La Voz de Cuscatlán, Cojutepeque
6)	HQ	*6170	48.62	0.2	La Voz del Progreso, San Miguel
7)	UA	*6190	48.47	1	R. Mil Cincuenta, San Salvador
8)	V	9545	31.43	1	La Voz del Comercio, Santa Ana
3)	S	9555	31.40	5	R. Nac. de El Salvador, San Salvador
9)	Y	*11725	25.58	1	R. Victoria, San Salvador
10)	AX	*11950	25.10	1	La Voz Panamericana, San Salvador

Medium Waves: Call: YS––. °=Short Wave. *=under constr.

	Call	kc	kW		Call	kc	kW		Call	kc	kW
11)	ABC	560	5	24)	DR	820	1	35)	OA	1120	1
12)	EB	580	10	25)	F	840	5	36)	G	*1130	2
13)	NK	600	5	26)	RC	*860	1	37)	T	1140	1
14)	LN	630	1	27)	AR	870	1	38)	CF	1150	1
3)	S	°655	10	28)	LA	*890	1	1)	CB	°1175	1
15)	QR	700	5	29)	QJ	910	10	39)	CG	1210	1
16)	RS	710	10	2)	W	°930	1	40)	MA	*1230	1
17)	RA	720	10	30)	ON	*940	2	41)	I	1250	3
18)	RU	720	10	6)	HQ	°950	1	8)	V	°1280	1
19)	R	730	10	9)	Y	°970	1	42)	HX	1300	1
20)	RM	740	10	31)	AN	*980	1	43)	CD	1360	5
21)	KLA	750	10	32)	AS	*990	10	44)	HZ	*1380	2.5
22)	KL	760	10	4)	C	°1015	10	45)	JI	1400	1.5
23)	KLB	770	5	7)	U	°1050	10	46)	HF	1430	5
5)	P	°780	10	33)	DM	1080	10	47)	TG	*1470	1
10)	AX	°800	5	34)	M	*1100		48)	FN	*1500	5

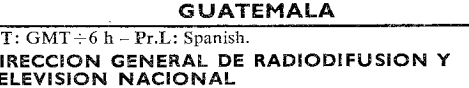
Circuito YSR (Comm.): (St's 16), 17), 18), 19), 20)) – **Addr:** Apt. Postal 720, San Salvador. **Te:** 3250. **Cable:** Yesere – **L.P:** Pres: R. I. Nieto. Mgr: B. Eserski. Dir. Prgr: J. David Calderón. Dir. Tec: R. Orantes – **D.Prgr:** All st's 12.00–06.00 – **Ann:** "Circuito YSR, la emisora popular – **V.** by QSL-card and letter. **Re.** in Sp, E free on request.
Radio Television YSU, S.A. (Comm.): (St's 2), 7), 11), 15)) – **Addr:** Apt. Postal 1050, San Salvador. **Te:** 1050 and 7500. **Cable:** Ysusa – **L.P:** Pres: A. Soler Serra. Mgr: O. A. Bolaños. Dir. Prgr: S. Rivera. Dir. Tec: R. H. Rahn – **D.Prgr:** All st's 12.00–06.00. **N:** 03.30, 05.50 and short news every 15 min – **Ann:** "En El Salvador, Centro América transmite Radio Cadena YSR" – **V.** by QSL-card and letter. **Re.** in Sp, E – **Pub:** Prgr.schedule free on request.
Cadena Radial Salvadoreña, S.A: (St's 12), 24), 33)) – **Addr:** Edif. Torre Lopez 8° piso, San Salvador. **Cable:** Carasal. **Te:** 3331 – **L.P:** Pres: A. Alfaro. Dir. Gen: G. Ramos. St. Mgr: H. Amaya C. Dir. Tec: O. Tario H – **D.Prgr:** All st's 12.00–06.00.
Short Waves:
1) 6a Av. Norte 15, Sonsonate – 2) Santa Ana – **V.** by QSL-card.
3) Alma Cuscatleca, Altos del Edif. del Teatro Nacional, San Salvador – **L.P:** Mgr: A. Parada. Dir. Tec: G. C. Vides – **D.Prgr:** N: 18.00, 21.00, 22.00, 00.15, 02.00, 03.00. **Wrp:** 18.00, 03.00(exc. Sun) – **Ann:** "Transmite R. Nacional de El Salvador, en la América Central" – **Int-Sig:** Four notes on xylophone – **V.** by QSL-card.
4) Ca. Oriente 218, San Salvador – **Ann:** "Esta es YSC, R. 1015 Ondas Populares y Deportivas en San Salvador, Centro América, Laboremos por la Paz, la Cultura y el Deporte."
5) Cojutepeque, Dept. de Cuscatlán – 6) San Miguel – 7) Apt. Postal 1050, San Salvador – **V.** by letter – 8) Santa Ana, Dept. de Santa Ana – 9) Ca. Gerardo Barrios 627, San Salvador.
10) 2a Av. Norte 319, San Salvador. **Cable:** Ysar – **D.Prgr:** 12.00–05.00. **N:** 12.30, 19.30.
Medium Waves: D.PRGR: Approx. 12.00–05.00.
11) **Radioemisora Salvadoreña**, San Miguel.
12) **Cadena Radial Salvadoreña**, Edif. Torres López, San Salvador.
13) **R. Exitos**, Edif. Cierra, San Salvador – 14) **R. 630**, Casa Flores, San Salvador – 15) **R. Morazán**, Mejicanos. Belongs to R. TV YSU. Broadcasts own prgr's 12.00–06.00.
16) **Circuito YSR**, Sonsonate – 17) **Circuito YSR**, Santa Ana – 18) **Circuito YSR**, Usulután – 19) **Circuito YSR**, San Salvador – 20) **Circuito YSR**, San Miguel.
21) **R. Universal**, Santa Ana – 22) **R. Universal**, San Salvador – 23) **R. Universal**, San Miguel.
24) **R. Tropical**, Santa Ana – 25) **R. Vanguardia**, San Salvador – 26) **R. Tecána**, Santa Ana – 27) **R. América**, San Salvador – 28) **R. Musical**, Santa Ana – 29) **R.Dif. YSQJ**, San Salvador – 30) **R.Dif. YSON**, San Salvador – 31) **R.Dif. YSAN**, Ahuachapán – 32) **R. Assai**, San Salvador – 33) **Cadena Radial Salvadoreña**, San Miguel – 34) **R. Dif. YSM**, San Salvador – 35) **R.Dif. YSOA**, San Salvador – 36) **R. Chaparrastique**, San Miguel – 37) **R.Dif. YST**, San Salvador – 38) **Cadena de Pacífico**, Sonsonate – 39) **La Voz Suprema de Occidente**, Santa Ana – 40) **R. Sistema Cultural**, Santa Ana – 41) **R. Reloj**, San Salvador – 42) **Radiocadena 1300**, Mejicanos – 43) **Cadena del Pacífico**, Santiago de María – 44) **R.Dif. YSHZ** – 45) **La Voz del Litoral**, Usulután – 46) **R. Caribe**, Cojutepeque – 47) **R. Sonora**, San Salvador – 48) **R.Dif. YSFN**, San Salvador.

GUADELOUPE (French West Indies)

L.T: GMT÷4 h – **Pr.L:** French.

R.DIF. TELEVISION FRANÇAISE

ADDR: Basse-Terre. **Te:** 148 – **L.P:** Dir: Ph. Lamotte. Dir. Tec: Angelet.
STATIONS (System TRT):
Pointe-a-Pitre 640kc 20kW – Basse-Terre 1420kc 4kW
HOME SCE: W: 10.15–11.30, 15.00–18.00, 22.00–02.00. Sun:10.15–02.00 – **Wrp:** 17.30, 23.30.
ANN: "Ici Radiodiff. Française Basse-Terre" – **INT-SIG:** Guitar – **V.** by letter. Rp.



GUATEMALA

L.T: GMT÷6 h – **Pr.L:** Spanish.

DIRECCION GENERAL DE RADIODIFUSION Y TELEVISION NACIONAL

ADDR: Edif. de la Tipografía Nacional, Ca. 18 de Septiembre 6–72, Zona 1, Guatemala. **Cable:** Tevenac. **Te:** 23318 – **L.P:** Dir. Gen: M. Mendoza Hidalgo.
STATIONS: All st's comm. exc. 10), 20), 23), 26), 53) Go; 1), 2), 3), 5), 7), 8) Educ. **Locations:** Guatemala City exc. where indicated.
Short Waves: Call: TG––. *=inactive.

	Call	kc	m	kW	Name	Approx. h of tr.
1)	RW	2340	128.4	0.1	Santa Cruz Barillas, Huehuetenango	
2)	SC	2350	127.6	1	La Voz de Candelaria, Huehuetenango	
3)	BA	2360	127.1	0.5	R. Maya Barillas, Huehuetenango	
4)	ZB	3355	89.45	0.15	R. Club	
5)	VN	3360	89.29	0.2	La Voz de Nahualá, Nahualá, Sololá	
6)	LAB	*4900	61.22		R. Victoria	
7)	RY	4920	60.98	0.2	La Voz de San Raymundo, S. Raym.	
8)	RH	4940	60.73	0.2	Escuela Relaciones Humanas	
9)	NA	5955	50.40	5	R. Cultural	12.00–03.00
10)	MZ	5970	50.25	0.5	R. Nacional, Mazatenango	
11)	AR	5980	50.17	1	R. Quetzal	13.00–04.30
12)	JA	5990	50.08	5	R. Nuevo Mundo	11.55–06.00

13) TA	6000	50.00	1	R. Sonora	12.00–06.00
14) DA	6020	49.83	1	La Voz de Occidente, Quezaltenango	
15) TQ	6030	49.75	5	R. Internacional	12.30–06.00
16) CO	6040	49.67	0.5	La Voz del Trópico, Quezaltenango	
17) XB	*6050	49.59		R. Centro Musical	
18) RLA	6060	49.50	1	R. Landivar, Quezaltenango	
19) PA	6070	49.42	0.4	R. Palmeras, Escuintla	
20) SM	6080	49.34	0.5	R. Nacional, San Marcos	
21) DZ	6090	49.26	2	R. Centroamericana	11.00–06.00
22) OA	*6100	49.18		La Voz de las Americas	
23) QA	6110	49.10	1	La Voz de Quezaltenango	13.00–04.00
24) HC	6140	48.86	1	R. Universal	12.00–06.00
25) AZ	6150	48.78	0.5	R. Continental	12.00–06.00
4) ZA	6160	48.70	0.25	R. Club	12.00–06.00
26) WB	6180	48.54	1	La Voz de Guatemala	11.55–06.00
27) FP	6190	48.47	0.5	R. Nacional Tikal, Flores Peten	
28) KN	*6200	48.39		R. Latina	
9) NB	9670	31.02	5	R. Cultural	03.00–04.00
26) WA	9760	30.74	10	La Voz de Guatemala	11.55–06.00
23) QB	11700	25.64	1	La Voz de Quezaltenango	13.00–04.00
30) RA	11750	25.53	0.5	R. Modelo, Retalhuleu	

Medium Waves: Call: TG––. °=Short Wave. *=also FM.

Call	kc	kW	Call	kc	kW	Call	kc	kW
31) BOL	560*	10	25) AX	°950*	0.5	11) AQ	°1270	1
19) PR	°575	0.4	42) CQ	980	1	53) TU	1280	0.5
32) Y	590*	1	43) AH	1000	0.2	54) AJ	1280	0.7
33) VA	610	0.5	44) UX	1020	10	55) MU	1300	0.2
34) GA	620*	0.5	17) XA	1040*	10	26) WC	°1360	10
26) W	°640	10	45) AF	1060	2	13) T	°1390*	10
35) RT	660	0.5	14) D	1070	0.35	56) AC	1400	0.5
36) RS	680	2	46) C	1080	0.5	57) GH	1410	0.5
37) HR	700*	5	28) K	°1100	1	58) RP	1420	0.5
9) N	°720	5	47) RR	1120	0.8	10) MS	°1450	0.5
38) RF	750	0.5	22) O	°1140	5	59) AG	1460	0.5
39) BX	770	0.5	4) Z	°1170	0.5	16) COA	°1470	0.5
24) HB	°780	1	18) RL	°1180	2	60) IZ	1470	0.5
15) TO	°810	5	48) ED	1210	1	61) HU	1480	0.5
23) Q	°830	1	49) ED	1210	1	21) DX	°1500	0.5
40) X	850	3	50) LL	1230	0.5	62) MG	1520	1
20) SM	°860	1.5	51) L	1240	1	30) RE	°1540	1
12) J	°880*	10	52) LG	1250	0.5	63) RE	1540	1
41) TL	920	5						

Short Waves:

1) Rev. W. Woods, Santa Cruz Barillas, Huehuetenango – 2) Jacaltenango, Huehuetenango – 3) Santa Cruz Barillas, Huehuetenango.
4) 3a Ave. 12-29 Z-1, Guatemala. **L.P:** Dir: H. E. Sagastume.
5) Nahualá, Sololá – 6) Mazatenango, Such.
7) Mpo. San Raymundo – 8) 12 Ca. 3–38 Z-1, Guatemala.
9) Apt. 601, Guatemala (owned by Central American Mission, 3611 Congress Ave, Dallas 19, Texas, US) – **L.P:** St. Dir: D. Rutledge. Dir. Prgr: D. Rutledge, E. Alburez. Dir. Tec: E. Yoder – **D.Prgr: Spanish** on 720/5955kc: 12.00–03.00, **English** on 720/9670kc: 03.00–04.00 – **Ann: E:** "These are your Good News Stations, TGN and TGNB" – **Sp:** "Estas son sus emisoras culturales TGN y TGNA" – **V.** by QSL-card – **F.PL:** 10kW.
10) Mazatenango Such – **L.P:** Dir: R. Samayo R – 11) 12 Ave. 26–27 Z-5, Guatemala. **L.P:** Dir: M. T. de la Rosa H – **Ann:** "R. Quetzal, la emisora símbolo en Guatemala C.A. 1270kc onda larga, 5980kc onda corta".
12) 6a. Ave. 10–45, Z-1, Guatemala – **L.P:** Dir: H. Gonzalez Juarez. Dir. Tec: J. de la Cerda. Dir. Prgr: M. Cotero A – **Ann:** "Esta es R. Nuevo Mundo con la música mas cervana a su recuerdo" – **V.** by QSL-card.
13) 5a. Ave. 16–38, Z-1, Guatemala – **L.P:** Dir: M. Ruiz Tejada – **Ann:** "Con Diez mil watts transmite en Guatemala – R. Sonora, 1390kc onda larga, 6000kc onda corta".
14) 7a. Ave. 0–26, Z-1, Quezaltenango – **L.P:** Dir: M. C. de Ríos – **Ann:** "TGD 1070kc onda larga, TGDA 6020kc onda corta – R. La Voz de Occidente en Quezaltenango, Guatemala " – **V.** by QSLcard.
15) KM. 12 Carretera Roosevelt, Guatemala – **L.P:** Owner & Dir: J. Monteros L – **Ann:** "TGTO R. Internacional de Guatemala en 810kc onda larga, 6030kc onda corta, auditorio en toda la República, Mejor Musica y menos BLA, BLA, BLA" – **Int-Sig:** Electrical Xylophone – **V.** by QSL-card.
16) Coatepeque, Quezaltenango – 17) 5a. Ca. 0–26, Z-1, Guatemala. **L.P:** Dir: J.A. Fernandez – **Ann:**"TGXA R. Centro Musical 1040kc".
18) Quezaltenango – **L.P:** Dir: C. A. Díaz. Mgr: H. Díaz M.
19) Km. 58 Autopista San José, Escuintla. **L.P:** Dir: C. Humberto Melgar P – 20) San Marcos. **L.P:** Dir: A. Mendes Z.
21) 2a. Ca. 36–89, Z-11, Guatemala – **L.P:** Dir: C. Peynado J.
22) 2a. Ave. 13–39, Z-1, Guatemala. **L.P:** Dir: J. Flamenco y Cotero.
23) Quezaltenango – **L.P:** Dir: M. Mendoza H. – **Ann:** "Difunden las estaciones TGQ R. Nacional de Quezaltenango, Guatemala" (followed by 4 xylophone notes). **V.** by QSL-card or letter. Records accepted.
24) 7a. Ave. 9–34, Z-1, Guatemala. **L.P:** Dir: M. T. Conde – **Ann:** "R. Universal". **V.** by QSL-card.
25) 13 Ca. 12–26, Z-1, Guatemala – **L.P:** Dir: R. Vizeaino R.
26) Ca. 18 de Septiembre 6–72, Z-1, Guatemala – **L.P:** Dir. Gen: M. M. Hidalgo – **Ann:** "Esta es TGW La Voz de Guatemala" (followed by 3 xylophone notes) – **V.** by QSL-card.
27) Flores Peten. **L.P:** Dir: J. Arnulfo Benitez O – 28) 12 Ave. 28–35, Z-5, Guatemala. **L.P:** Dir: R. Contreras – 30) Retalhuleu.

Medium Waves: D.Prgr: 12.00–05.00 Approx.
31) **R. Cinco Sesenta,** 8a. Ave. 9–23, Z-1, Guatemala.
32) **R. Progreso,** 6a. Ave. 10–50, Z-1, Guatemala. **L.P:** Dir: J. H. Andrino – 33) **R. Monumental,** Antigua. **L.P:** Dir: M. Gonzalez U.
34) **La Voz de la Libertad,** 13 Ca. 6–77, Z-1, Guatemala. **L.P:** Dir: J. T. Barrios – 35) **R. Tacaná,** 19 Ca. 11–34, Z-1, Guatemala.
36) **R. Sur,** Escuintla. **L.P:** Dir: C. A. Díaz – 37) **R. Mundial,** 2a. Ave. 6–45, Z-1, Guatemala. **L.P:** Dir: M. P. Quintana – 38) **R. Faro Aviateca,** 1a. Ca. 6–90, Z-9, Guatemala. **L.P:** Dir: G. Andreu C.
39) **R. Corporación,** Quezaltenango. **L.P:** Dir: C. Linde S – 40) **R. Ciro's,** 8a. Ca. 2–28, Z-1, Guatemala. **L.P:** Dir: H. H. Moncrieff. **Ann:** "R. Ciros la emisora musical de Guatemala" – **Int-Sig:** Xylophone.
41) **La Voz de la Telefunken,** 4a Ca. 20 Ave, Z-14, Guatemala. **Cable:** Telefunken - **L.P:** Dir: E. Mayorga L – **D.Prgr:** 12.30 05.30 – **Ann:** "La Voz de la Telefunken 920kc, Guatemala". **V.** by letter.
42) **R. Central,** 6a Ave. 1–31, Z-9, Guatemala. **L.P:** Dir: C. Gamboa.
43) **R. Mil,** 6a Ave. 4-61, Z-10, Guatemala. **L.P:** Dir: G. Galan P.
44) **R. Panamericana,** Carretera Roosevelt, Guatemala. **L.P:** Dir: J. Paniagua S – 45) **R. Indiana,** Mazatenango. **L.P:** Dir: G. Alcazar.
46) 7a. Ave. 20–20, Z-1, Guatemala. **L.P:** J. A. Quiñonez.
47) **R. Reloj,** 1a Ave. 8–50, Z-1, Guatemala. **L.P:** Dir: M. JohnstonJr.
48) **R. Mil Doscientos Diez,** 3a Ave. 13–07, Z-1, Guatemala.
49) **R. Mil Doscientos Diez,** Puerto Barrios. **L.P:** Dir: J. Archila.
50) **R. Columbia,** 9a Ave. 13–17, Z-1, Guatemala. **L.P:** Dir: L. Paniagua – 51) **R. Victoria,** Mazatenango. **L.P:** Dir: A. Medina.
52) **La Voz de los Mayas,** 9a Ca. 0–02, Z-1, Guatemala. **L.P:** Dir: L. E. Gonzalez M. – 53) **R. Nacional,** Totonicapan.
54) **R. Tropicana,** Escuintla. **L.P:** Dir: M. A. Mendez – 55) **La Voz de la Buena Musica,** 13 Ca. 9–62, Z-1, Guatemala.
56) **R. Cultural de Colomba,** Quezaltenango **L.P:** Dir: O. Garcia U.
57) **R. Xelajú,** Quezaltenango. **L.P:** Dir: G. Hurtado Aguilar.
58) **La Voz de la Eterna Primavera,** 8a Ca. 3–18, Z-1, Guatemala. **L.P:** Dir: J. Luis Andreu – 59) **La Voz de Huehuetenango,** Huehuetenango. **L.P:** Dir: M. Guzman – 60) **La Voz del Atlántico,** 19 Ave 1–46, Z-6, Guatemala. **L.P:** Dir: F. Monteagudo – 61) **R. Circuito TGHU,** Posada Belem, Antigua. **L.P:** Dir: R. de León – 62) **R. Nacional Matias de Galvez,** Pto. Matías de Galvez. **L.P:** Dir: E. B. Pitts. 63) **R. Modelo,** Zacapa. **L.P:** Dir: G. Andreu C.

HAITI

L.T: GMT ÷ 5 h – **Pr.L:** French, Creole.

DEPARTEMENT DES TRAVEAUX PUBLICS

Service des Télégraphes, Téléphones & Radios, Port-au-Prince.
STATIONS: All st's comm. exc. 1), 2), 10), 12) (Religious).
Short Waves: Call: 4V––. *=inactive.

Call	kc	m	kW	Name and h of tr.
1) O	2410	124.5	0.25	R. Lumière, Les Cayes
2) SO	2450	122.5	0.25	R.St. 4VEH, Cap Haitien: 11.00–14.00, 17.00–01.30
3) GS	5020	59.76	0.12	R. Independance, Gonaives: 11.00–14.00, 17.00–20.00, 23.00–02.30
4) GA	5030	59.64	0.2	R. Capois la Mort, Port-de-Paix: 11.00–19.00, 23.00–03.00
5) AF	5090	59.00	0.2	Voix de la Grande-Anse, Jérémie
6) CB	*5740	52.26	0.3	Voix du Sud, Aux Cayes: 19.30–03.00
7) B	5985	50.13	7.5	R. Commerce, Port-au-Prince: W 11.00–04.00, Sun 11.30–24.00
8) EB	6015	49.88	0.75	R. Caraibes, Port-au-Prince: W 11.00 04.00(Sat/Sun 05.00)
9) CP	6075	49.38	0.15	Voix du Nord, Cap Haitien: 12.00–15.00, 20.30–01.30
1) U	6100	49.18	0.25	R. Lumière, Les Cayes: 10.00–13.30
10)	6100	49.18	0.54	Voix de l'Ave Maria, Cap Haitien
2) E	6120	49.02	2.5	R.St. 4VEH, Cap Haitien: 11.00–14.00, 17.00–01.30
11) WA	6155	48.74	0.25	R. Citadelle, Cap Haitien: 12.00–15.00
12) M	6165	48.66	1	R. Manrèse, Port-au-Prince: 12.00–13.00, 22.00–24.00
13) SC	6178	48.55	0.2	R. Saint Marc: 12.00–15.00, 19.00–01.00
14) HW	6195	48.43	1	R. Haiti, Port-au-Prince: W 11.00–04.00, Sun 13.30–03.00
7) C	9540	31.45	7.5	R. Commerce, Port-au-Prince: W 11.00–04.00, Sun 11.30–24.00
1) VU	9635	31.14	0.25	R. Lumière, Les Cayes: 12.45–13.30
2) EH	9770	30.71	0.4	R.St. 4VEH, Cap Haitien: 11.00–14.00, 17.00–01.30
2) EJ	11835	25.35	2.5	R.St. 4VEH, Cap Haitien: 11.00–14.00, 17.00–01.30

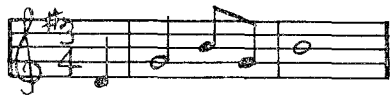
Medium Waves: °=Short Wave. *=inactive. a=not using its off. freq

Call	kc	kW	Call	kc	kW	Call	kc	kW
1) I	°760	1	2) EF	°1035	10	15) W	°1330	1.5
1) UE	780	0.25	7) A	°1080	1.5	23) S	1385	1
15) NL	860	0.2	20) F	1120	0.2	24) GM	1430	1
16) 2A	a880	0.15	8) AB	°1150	1	9) EA	°1460	0.15
17) CD	960	0.3	21) RD	1170	0.25	25) PE	1475	0.2
18) CPS	990	0.2	1) IE	1180	0.25	26) A2F	1530	0.15
19) PW	*1020		22) YM	1250	0.6			

Short Waves:

1) Les Cayes – **L.P:** Dir: L. A. Markwood. Dir. Tec: D. Hartt – **D.Prgr:** Mo: 10.30–13.00, 21.30–02.00; Tues–Sat 10.00–13.00, 20.30–02.15; Sun 10.30–02.30. **English Lesson:** Tues–Thurs: 12.00, 24.00 – **Int-Sig:** "La Lumière du Monde c'est Jésus-Christ" – **V.** by QSL-card – **Pub:** Prgr.schedule on request.

2) Box 1, Cap Haitien. **Cable:** Ormiso – **L.P:** Dir. Gen: Dr. E. Erny. Dir. Tec: M. E. Picazo. Dir. Prgr: Miss M. Stockton – **D.Prgr:** On all. freg's: 11.00–14.00, 17.00–01.30 **English:** D. 11.00–14.00, Sun 19.00–21.00 **N:** 11.15 (Sun), 12.00, 01.00 – **French & Creole:** D. 17.00–21.00, 23.00–01.30. **N. French:** 17.00, 23.00 – **Spanish:** D. 21.00–23.00 N. 22.00 – **Listener's Post** (Mbg, DX-prgr): Sat 12.15 to No. America – **Ann:** F: "Ici La Voix Evangelique d'Haiti" or "Ici R. 4VEH" – Sp: "Escucha Ud. La Voz Evangelica de las Antillas" or "R. 4VEH" – E: "This is the Evangelistic Voice of the West Indies" or "This is R. 4VEH" – **Int-Sig:** Gong.



V. by QSL-card or letter. Rp. preferred but not required. Re. in E, Sp, F – **Pub:** Prgr.schedule (twice a year) free on request.

3) Gonaives – **L.P:** Dir: E. Mitton – **Ann:** "Ici R. Independance, Poste 4VGS à Gonaives, République d'Haiti, Grandes Antilles" – **V.** by QSL-card.

4) Port-de-Paix – **L.P:** Dir. Tec: G. Arthamin – 5) Jérémie – **L.P:** Dir. Tec: A. Félix. Freq. to be changed – 6) Aux Cayes.

7) B.P. 1143, Port-au-Prince. **Cable:** Radioco – **L.P:** Dir. Gen: S. Lassegue. Dir. Tec: A. Brown – **D.Prgr: La Voix de la République d'Haiti: D:** 12.00, 19.30, 23.15, 02.30 (rel. by most st's at Port-au-Prince). **N:** Every h on the h at 14.00–22.00, 02.45. **Arabic** (special comm. prgr): Sun 17.30–18.15 for Arabic-speaking residents. **German/French:** Sun 22.00–23.00. **English:** D: 11.30–12.00, 01.30–02.00 – **Ann:** "Ici R. Commerce, Poste de 4VA & 4VB emettant en onde longue sur la freq. de 1080kc et celles des 49m de Port-au-Prince, Capitale de la *République d'Haiti, Grandes Antilles* – **V.** by QSL-card or letter.

8) 23, Ruelle Chavannes, Port-au-Prince. **Te:** 4115 – **L.P:** Dir. Gen: & Dir. Tec: A. Brown – **D.Prgr: N:** 13.00, 00.00 – **German/French:** W 02.30–03.00 – **Wrp:** 21.00, 00.30 – **Ann:** "Ici R. Caraïbes, Poste 4VAB et 4VEB, émettant sur la bande des 260m 86, et celle des 49m de Port-au-Prince, Capitale de la République d'Haiti, Grandes Antilles" – **V.** by QSL-card or letter. Rp.

9) Cap Haitien – **L.P:** Dir. Tec: E. Anacréon – **Ann:** "Ici la Voix du Nord, Poste Comm. de Radiodiff. 4VCP, affiliée à la chaine de la Paix des Nations Unie...".

10) Eveché du Cap Haitien, Cap Haitien – **L.P:** Dir. Gen: A. Jamier. Dir. Tec: F. Sénégal – **D.Prgr: N:** *11.30, 23.00* – **Ann:** "Ici la Voix de l'Ave Maria".

11) Cap Haitien – **L.P:** Dir. Tec: S. Wainwright – **Ann:** "Ici R. Citadelle, Poste 4VWA au Cap Haitien, Capitale touristique de la République d'Haiti, Grandes Antilles" – **V.** by QSL-card.

12) P.O. Box 525, Port-au-Prince – **L.P:** Dir: R. P. P. Laramée, S. J. **D.Prgr: English:** 15 min. prgr. (W), 30 min. prgr. (Sun) – **Ann:** "Ici R. Manrèse, poste 4VM à Port-au-Prince, Haiti" – **V.** by QSL-card.

13) Rue Louverture 158, St. Marc – **L.P:** Dir. Tec: E. S. Côtes – **V.** by letter.

14) P.O. Box 737, Port-au-Prince – **L.P:** Dir. Tec: R. Widmaier – **D.Prgr: N:** 11.45, 12.15, 15.00, 17.30, 20.00, 22.45, 02.30. **English:** Sun 00.30 (irr). **English or Spanish special prgr's:** Sun 23.00–23.30 (fortnightly) – **Ann:** "Ici R. Haiti, Postes 4VW, 4VRH et 4VWH, à Port-au-Prince".

Medium Waves:

15) Centre de R.dif. Commerciale, 889 *Blvd. Harry Truman,* Martissant, Port-au-Prince – **L.P:** Dir. Tec: N. St. Laurent – **D.Prgr:** 11.00–15.00, 17.00–23.00 – **F.Pl:** sw. 5040kc (4VNS).

16) **R. Nationale,** Ave. Jn. J. Dessalines 265, Port-au-Prince – **L.P:** Dir. Tec: A. Féquière – **D.Prgr:** 10.00–04.00 (Sun/Mo 05.00) – 17) **R. Carillon,** Rue Dr. Aubry 157, Port-au-Prince – **L.P:** Dir. Tec: C. Desmangles – **D.Prgr:** W 11.00–13.00, 17.00–23.00. Sun 14.00–02.00.

18) **R. Cacique,** Bellevue 5, Port-au-Prince – **L.P:** Dir: J. Claude Carrié – **D.Prgr:** W 11.30–14.00, 17.00–03.00. Sun 13.00–18.00 – **Ann:** "Pour l'unité de la famille haitienne, R. Cacique, Poste 4VCPS émet avec une fréquence de 990kc de ses studios situés à Bellevue 5, Port-au-Prince, Haiti" – 19) **R. Petionville,** Petionville – 20) **R. Union,** 1 Ruelle Louverture, Port-au-Prince – **L.P:** Dir: R. Achille – **D.Prgr:** W 11.30–14.00, 17.00–04.00. Sun 13.00–23.00 – **F.Pl:** sw. in 60 & 49mb.

21) **R. Tropiques,** Ave. John Brown, Port-au-Prince – **L.P:** Dir: R. Dambreville – **D.Prgr:** 15.00–03.00(Sun 22.00 – **Ann:** "Canal Onze Soixante-Dix, *Avenue John Brown, (Lalue); le Poste: R. Tropiques*".

22) **R. Diffusion Haitienne,** Ruelle Jeanty, Port-au-Prince – **L.P:** Dir: Y. Michel – **D.Prgr:** W 12.00–01.30 – **Ann:** "Pour le Rayonnement de l Culture et l'Avancement du Peuple Haitien, ici la Radiodiff. Haitienne, Poste 4VYM..."

23) **R. Port-au-Prince,** Stade Sylvio Cator, Port-au-Prince – **L.P:** Dir: A. Hérad – **D.Prgr:** 10.45–14.30, 17.00–03.00.

24) **Magloire Broadc. Circuit,** Rue Americaine, Port-au-Prince – **L.P:** Dir: Frank C. Magloire (owner local newspaper "Le Matin") – **D.Prgr:** W 11.30–04.00, Sun 13.00–01.00.

25) **La Voix des Antilles,** Rue Capois 68, Port-au-Prince – **L.P:** Dir. Tec: A. P. Louis – **D.Prgr:** 10.30(Sun 12.00)–03.00 – 26) **R. Quisqueya,** Rue des Miracles 88, Port-au-Prince – **L.P:** Dir: F. E. Neptune – **D.Prgr:** 11.00–22.00 – **Ann:** "Au service du commerce, au service des hommes d'affaires et du public en général, ici R. Quisqueya".

HONDURAS (British)

L.T: GMT÷6 h – **Pr.L:** English, Spanish.

RADIO BELIZE (Go.)

FI: By state and license fees – **ADDR:** P.O. Box 89, Belize. **Cable:** Radio. **Te:** 80 – **L.P:** Dir: E. G. Waight. Dir. Tec: J. Bedan.

STATIONS: 830kc 20kW – 3300kc 90.85m 5kW.

HOME SCE: English: W: 12.30–15.30, 18.00–18.45, 00.30–04.05. Sun: 12.30–18.45, 00.30–04.20. **N, Wrp:** 13.00, 15.00, 18.30, 01.00, 03.00 – **Spanish:** 18.45–18.55, 22.30–00.30. **N:** 18.45, 00.00.

ANN: E: "This is R. Belize". Sp: "Esta es R. Belice" – **INT-SIG:** At opening: Nat. Anthem. At closing: Greensleeves – **V.** by QSL-card. Rp. Records accepted.

HONDURAS (Rep.)

L.T: GMT÷6 h – **Pr.L:** Spanish.

DIRECCION GENERAL DE COMUNICACIONES ELECTRICAS – ADDR: Edif. Comunicaciones Electricas, Tegucigalpa. **Cable:** Gentel. **Te:** 3210.

STATIONS: All st's comm. exc. 22) (Rlg. Cultural). **Call** HR—.

Short Waves:

Call	kc	m	kW	Name & h of tr.
1) LC	4775	62.84	1	R. Continental, San Pedro Sula: 13.00–04.00

2) ST	4790	62.29	0.5	R. Primero de Mayo, Tela: 13.00–04.00
3) QN3	4905	61.16	0.5	La Voz del Atlantico, Puerto Cortez: 15.00–03.00
4) US	4940	60.73	1	La Voz de Suyapa, Tegucigalpa: 11.00–03.00
5) QW	4995	60.06	0.5	R. Juventud, Tela: 13.00–05.00
6) NL	5975	51.05	1	La Voz de Honduras, Tegucigalpa: 12.00–05.00
7) RH5	5960	50.34	1	La Voz de Occidente, Santa Rosa de Copan: 13.00–04.00
8) VW2	5965	50.28	0.5	La Voz de Centro America, San Pedro Sula: 14.00–05.00
9) P1	5995	50.04	1	El Eco de Honduras, San Pedro Sula: 13.00–04.00
10) OW2	6020	49.83	1	R. Monserrat, Tegucigalpa: 12.00–04.00, 11.30–04.00
11) TL	6035	49.71	1.5	R. Tegucigalpa: 12.00 06.00
12) LP3	6050	49.59	1	R. America, Tegucigalpa: 13.00–05.00
13) YN4	6060	49.50	0.3	La Voz del Merendon, San Pedro Sula: 12.00–04.00
14) MH5	6075	49.38	0.6	La Voz del Junco, Santa Barbara: 12.00–06.00
15) NQ4	6090	49.26	0.5	R. Morazan, Tegucigalpa: 12.00–04.00
16) XW2	6110	49.10	0.5	R. Comayagüela: 12.00–04.00
17) Q4	6125	48.98	1	R. Suyapa, San Pedro Sula: 12.00–05.00
18) ME2	6135	48.90	0.9	La Voz del Patio, La Cieba:12.00–06.00
19) XN4	6145	48.82	0.3	R. Estrella, Tegucigalpa: 12.00–06.00
20) UC	6155	48.74	1	R. Centro, Tegucigalpa: W 12.00–05.00. Sun 14.00–03.00
21) TW4	6165	48.66	1	R. & Television Hondureña, Tegucigalpa: 11.00–06.00
22) MT4	6185	48.40	0.5	R. Molino Rojo, San Pedro Sula: 12.00–04.00
23) D2	6195	48.43	0.5	La Voz de Atlantida, La Ceiba: 12.00–04.00
4) ZN	9610	31.22	2	La Voz de Suyapa, Tegucigalpa

Medium Waves: Call: HR—. °=Short Wave. ¹=also FM.

12) LP	°610	10	4) VS	°925	1	18) ME	°1350	0.5
22) MT	°640	1	11) TV	°980	1.5	7) HR	°1370	0.5
6) N	°670¹	10	19) XN	°1040	1.5	26) VC	1380	1
21) TV	°715	1.1	3) QN	°1150	0.5	2) ST	°1390	
13) YN	°740	1	16) XW	°1200	0.5	9) P	°1400	0.5
15) NQ	°775	10	17) Q	°1250	1	8) P1	1400	1
10) OW	°850	2	24) XA	1280	0.3	5) QW	°1420	0.5
20) U	°865	10	8) H6	1300		27) TI	1460	0.5
4) ZN	°890	1	25) QR4	1320	0.5	8) LC	1460	

Short Waves:

1) Sr. L. J. Canahuati, San Pedro Sula – 2) Sindicato de Trabajadores de la Tela RR. Co, Tela, Atlantida – 3) Barrio "La Curva", Puerto Cortez – 4) Iglecia Católica Nacional, Apt. Postal 480, Tegucigalpa, DC – **L.P:** Dir. Gen: Rev. J. M. Molina S. Dir. Tec: O. Tróchez A – **D.Prgr:** N: 12.00, 24.00 – **Ann:** "R. Internacional, La Voz de Suyapa, Emisora Catolica de Honduras" – V. by QSL-card. Re. in Sp, E or F.

5) Sr. A. Griffin H, Barrio "El Centro", Tela Atlantida.

6) Av. Lempira 8a, Ca. 410, Tegucigalpa – **L.P:** Dir. Gen: R. Breve M. Dir. Tec: F. Pon Aguilar – **D.Prgr:** N: 12.30, 18.30, 23.45, 03.00, 04.30. **Ann:** "Esta es HRN la primera Emisora de Honduras, desde Tegucigalpa, Honduras, Centro America" – V. by letter – **F.Pl:** Nat. network with st's in 3 cities – 7) Dr. A. Rendón h, Santa Rosa de Copan.

8) Apt. 120, San Pedro Sula – **L.P:** Owner: Jorge J. Sikaffy. Dir. Tec: H. Herman – **MW:** R. El Mundo Continental. **FM:** 89.3Mc. **D.Prgr:** 19 h in Sp, E, Arabic – **Ann:** "HRVW, HRWW" – **Int-Sig:** Gong – V. by letter.

9) Apt. 24, San Pedro Sula. **Cable:** Radio Sula – **L.P:** Dir. Gen: A. A. Diaz Z. Mgr: F. Diaz Z. Dir. Tec: L. C. Gomez – **D.Prgr:** N: 17.00, 01.15. **English Lesson:** 23.30–23.45 – **Ann:** "Estas son HRP1 y HRPX El Eco de Honduras, desde San Pedro Sula, Honduras, Ca" – V. by letter. Re. in Sp, E. and F – 10) Tegucigalpa, DC. **Cable:** Monserrat. **Ann:** "HROW R. Monserrat, la emisora de los hundureñas en Tegucigalpa, Honduras, Centro América" – V. by QSL-card.

11) E. J. Chahin, Tegucigalpa, DC – 12) Apt. Postal, 259. Tegucigalpa. **Te:** 1371 – **L.P:** Mgr: R. Silvio P. Dir. Tec: L. Carlos G – **D.Prgr:** N: 12.00, 18.30, 00.30, 05.30 – **Ann:** "Estas és R. América en Tegucigalpa". V. by QSL-card – 13) J. J. Romera, San Pedro Sula. V. by letter.

14) M. H. Hasbun, Santa Barbara – 15) F. P. Aguilar, P.O. Box 393, Tegucigalpa, DC – 16) H. Andino, Comayagüela – V. by QSL-card.

17) Apt. 33, San Pedro Sula – **D.Prgr:** N: 13.00, 18.00, 00.00, 04.00. **Ann:** "HRQ R. Suyapa, San Pedro Sula, Honduras, Centro-america". V. by QSL-card and letter – 18) Professor G. Irias, La Ceiba, Atlantida.

19) V. Zavala, Tegucigalpa, DC – 20) Apt. Postal 642, Tegucigalpa. **Te:** 3801 – **L.P:** Dir. Gen: M. Villeda T. Dir. Tec: F. P. Aguilar. **D.Prgr:** N: 12.00, 13.10, 18.00, 03.00 – **Ann:** "Esta es Radiocentro, la emisora del centro de su radió..." – **Int-Sig:** four notes on Xylophone. V. by letter – **F.Pl:** New st. "R. Exitos".

21) Apt. 734, Tegucigalpa, DC – **L.P:** Dir. Gen: M. Brooks H. Dir. Tec: A.D. Lardizábal – **Ann:** "Radio-Televisión Hondureña". V. by letter. Records accepted – 22) M. Morales, San Pedro Sula – 23) Suc. Ing. M. R. Moncada, La Ceiba, Atlantida.

Medium Waves:

24) **La Voz de Choluteca**, Choluteca – 25) **La Voz del Pueblo**, Tegucigalpa – 26) **La Voz Evangelica, de Honduras**, Tegucigalpa – 27) **R. Santa Lucia**, Tegucigalpa.

JAMAICA

L.T: GMT÷5 h – **Pr.L:** English.

R. JAMAICA & REDIFFUSION LTD. (Comm.)

FI: By adv – **AD:** 12 mins. per h – **ADDR:** 32 Lyndhurst Road, Cross Road, Kingston 5. **Cable:** Broadco. **Te:** 68151 – **L.P:** Gen. Mgr: G. Binns, MA. Dir. Prgr: J. Colley. Eng. in charge: W. G. Matthews.

STATIONS:

Mandeville	770kc	5kW	Point Galina	580kc	5kW
Kingston	720 –	5 –	Montego Bay	550 –	5 –

HOME SCE. in English: 09.45–05.00(Sat 06.00).

N: 10.30, 11.00, 12.00, 12.30, 13.00*, 13.10, 17.00, 19.00, 22.00, 22.10, 23.00, 24.00, 02.00*, 02.10, 04.00 (*=BBC) – **Wrp:** 11.05, 02.59. Imminent Hurricane warnings on the h every h of transmission.

ANN: "This is R. Jamaica and Rediffusion" – V. by QSL-card.

JAMAICA BROADCASTING CORPORATION
(Comm. and Public Service)

FI: By adv. and Go. aid – **AD:** Max. 12 min. per h – **ADDR:** 5 South Odeon Ave, Kingston. **Cable:** Jarad. **Te:** 65621 – **L.P:** Gen. Mgr: A. L. Hendriks. Dir. Tec: M. Hately. Dir. Prgr: F. M. Needham.

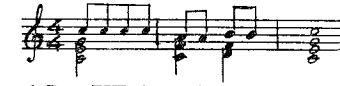
STATIONS:

Kingston	560kc	5kW	Spur Tree	620kc	5kW
Montego Bay	700 –	5 –	Point Galine	750 –	5 –

FM: Kingston 95.1Mc 1.2kW – Half Way Tree 99.9Mc 0.08kW – Christiana 91.1Mc 1.2kW.

HOME SCE: 09.45–05.00: **N:** 10.30, 11.00, 11.30, 12.00, 13.00*, 13.30, 17.30, 18.30, 21.30, 22.30, 23.00*, 23.10, 23.30, 00.30, 02.30, 03.00*, 04.30 (*=BBC) – **Wrp:** 10.30, 17.00, 23.10.

ANN: "This is the JBC – the Voice of Jamaica" – **INT-SIG:**



V. by QSL-card. **Rp – PUB:** Prgr.schedule (weekly).

LEEWARD ISLANDS

L.T: GMT÷4 h – **Pr.L:** English.

Antigua

ANTIGUA BROADCASTING SERVICE (Go.)

ADDR: St. Johns, Antigua – **L.P:** Mgr: E. A. M. John.

STATION: 644kc 0.5kW – **HOME SCE. in English:** W 10.30–12.00, 16.00–18.00. Sun 10.00–12.00, 20.00–02.30.

Montserrat

RADIO MONTSERRAT (Go.)

ADDR: P.O. Box 201, Plymouth, Montserrat – **L.P:** Chmn: C. Osborne. Dir. Tec: F. J. Day.

STATION: 1550kc 0.25kW – **HOME SCE. in English:** Mo-Fri 00.00–02.00; Sat 15.00–16.00, 00.00–02.00; Sun 20.00–22.00.

St. Kitts

RADIO STATION ZIZ (Go.)

ADDR: Springfield, Basseteire, St. Kitts – **L.P:** Mgr: K. Osborne.

STATION: ZIZ 570kc 0.66kW.

HOME SCE. in English: 10.45–13.00, 22.00–01.00. **N:** 11.00, 23.00, 23.30 – **ANN:** "This is R. Station ZIZ" – V. by letter. Records accepted.

The Marconi Company Ltd, G.B, delivered 660W mw-tr.

MARTINIQUE (French West Indies)

L.T: GMT÷4 h – **Pr.L:** French.

ANTILLES-GUYANE NETWORK (R.dif. Télévision Française)

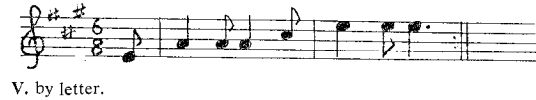
ADDR: Clairiere, Fort de France. **Te:** 6060 – **L.P:** Dir: J. Reiber. Dir. Tec: J. A. Edel. Tec. Asst: J. Barquissau.

STATIONS (Systems: Thomson-Houston, TRT):

1500kc	200.0m	50kW	4895kc 61.29m 4kW
3315 –	90.50 –	4 –	5994 – 50.04 – 4 –

HOME SCE: 10.15–02.30 on 1500kc; 10.15–12.00, 20.00–02.30 on 3315kc; 12.00–20.00 on 5995kc; 12.00–23.00 on 4895kc. **N:** 10.30, 11.30, 13.00, 14.00, 15.30, 16.30, 17.00, 17.30, 19.00, 20.00, 22.00, 23.00, 23.30, 02.20 – **Wrp:** 17.30, 23.30 – **T.S:** on the h.

ANN: "Ici Radiodiff. Française Antilles-Guyane" – **INT-SIG:** First eight notes of "Adieu Foulards, Adieu Madras" on piano.



V. by letter.

MEXICO

L.T: GMT÷6 h (Mexico generally), GMT÷7 h (Sonora, Sinaloa, Nayarit and Lower Cal), GMT÷8 h (Upper Cal) – **Pr.L:** Spanish.

DIRECCION GENERAL DE TELECOMUNICACIONES
Departemento de Radiodifusion – **ADDR:** Col. Narvate, México, DF.
L.P: Dir. Gen: Eng. E. Diaz Gutierrez.
STATIONS: All st's comm. exc. 1), 2), 6), 13), 16), 18), 23), 82) (XEAD only), 83), 117) (WEJM only), 198) (Cultural).
Short Waves: Call: XE–––. *=inactive.

	Call	kc	m	kW	Name and h of tr.
1)	SE	2380	126.0	0.35	Sria. de Educación Pública, México
2)	JG	4820	62.24	0.2	Emis. Casa de la Cultura, Guadalajara Mo 04.00–05.00
3)	OI	6010	49.92	2.5	R. Mil, México 12.00–07.00
4)	UW	6020	49.88	0.25	El Eco de Sotavento, Vera Cruz 11.30–06.00
5)	KW	*6030	49.75	0.5	R. Continente, Morelia
6)	XQOC	6045	49.63	0.25	R. Universidad Potosina, San Luis Potosa 17.00–06.00 (Sun 14.00–02.00)
7)	XG	6065	49.46	5	R.Dif. México, México 12.00–06.00
8)	CMT	6090	49.26	1	R.Dif. XECM/XECMT, Ci. Mante 13.00–03.00
9)	QM	6105	49.14	0.25	Sistema R. Yucatan, Mérida 13.00–06.00
10)	WW	6115	49.06	10	La Voz de la America Latina, México 11.00–05.45
11)	TS	6120	49.02	0.5	R. XETS, Tapachula, Chis.
12)	RCM	*6130	48.94	0.1	R. Central de México, México
13)	XA	*6175	48.58	0.1	R. Gobernación, México
10)	WW	9515	31.53	10	La Voz de la America Latina, México 11.00–05.45
14)	FT	9545	31.43	0.25	La Voz de Veracruz, Vera Cruz 11.30–06.00
15)	TT	9555	31.40	1	La Hora Exacta, México 13.00–06.00
16)	YU	9600	31.25	0.25	Universidad Nac. de México irr.
17)	BT	*9625	31.17	10	R.Dif. XEB/XEBT, México
17)	QQ	*9680	30.99	1	R.Dif. XEQ/XEQQ, México
18)	NN	*11780	25.47	0.5	R. XEN/XENN, México
19)	BR	11820	25.38	0.15	El Heraldo de Sonora, Hermosillo 13.00–05.00
20)	LZZ	*11860	25.29	1	R. Novedades, México
21)	HH	11880	25.25	5	R.Dif. Comerciales, México 12.00–06.00
21)	RR	15110	19.85	5	R.Dif. Comerciales, México 12.00–06.00
10)	WW	15160	19.79	10	La Voz de la America Latina, México 11.00–05.45
22)	SC	15200	19.74	5	R.Dif. XEMC/XESC, México, irr.
23)	RU	*15300	19.60	0.25	Universidad de Chihuahua

Medium Waves: Call: XE–––. °=Short wave.
[1]=also FM. [2]=relay st. [3]=time signal st. D=Daytime operation only (12.30–02.00 approx). a=Belongs to RCN. Stations printed in fat type are in México City.

Call	kc	kW	Call	kc	kW	Call	kc	kW
11) WA	540[2]150		55) OO	620	1/0.25	80) BA	a820	1
11) WA	540[2]0.5		56) FB	630	5/1D	81) KG	820	1D
24) KL	550	1/0.25	57) FU	630	2/0.75	82) SB	820	1D
25) QW	a550	5d	2) JB	°630[3]0.5		83) LA	830[3]10/5D	
26) UC	550	1/0.25	58) TK	630	1/0.25	82) AD	840	1D
27) BJ	a570	1	11) TS	°630	1/0.5	84) TQ	850	10D
28) BJ	570	5/0.1	59) ZM	650	5	85) M	a850	5
29) LQ	570	1	60) Z	660	2	86) ZR	a850	1
30) NZ	570	1/0.25	61) FJ	680	1D	65) WI	860	1D
31) OA	a570	5/0.25	62) KQ	a680	5/0.5	88) DU	a860	1/0.5
32) TJ	570	1/0.1	63) LG	680	10D	89) MO	860	5
33) VX	570	1/0.25	18) N	°690[1]20		90) NW	860	1/0.25
34) AV	580[1]5/1		64) TRA	690	50D	16) UN	°860[1]5	
35) DZ	580	1/0.45	65) DV	700	1D	91) MM	a870	1
36) FI	580	5/0.25	27) BL	710[1]5/1D		10) W	°900[1]250	
37) HP	580	1/0.15	20) MP	710	1/0.5	92) HO	910[1]1/0.25	
38) MU	580[1]5/0.25		66) ON	710	1	4) U	°920[1]1/0.25	
39) UE	a580	1/0.1	67) RL	710	1/0.25	19) BH	°920[1]5/1	
40) E	590	1/0.15	7) X	°730[2]1100/50		93) BM	920	5/1
41) FD	590	5/0.25	68) ZZ	760	5D	94) CQ	a920	5/0.1
42) HQ	590	1/0.5	10) WB	760[2]50		95) MJ	920	1/0.25
43) PH	**590**	**5**	69) BI	790	1/0.25	96) OK	920[1]1/0.25	
44) BB	a600	5/1	70) FE	790	1/0.5	17) Q	°940[1]150/50	
45) DN	600[1]1		71) GZ	790	1/0.25	97) WV	940[1]1/0.1	
46) Z	a600	2	72) NT	790	5/0.75	98) GM	950	3.5/2.5D
47) BX	610[1]5/0.5		20) RC	790[1]5/1		99) YJ	950	1/0.1
48) CV	a610	1/0.25	73) SU	790[1]1D		100) K	a960	5/1
49) GS	610	1/0.5	74) VA	a790	5/0.2	101) CS	960	1/0.1
50) JA	610	1/0.5	75) MMM	a800	1	102) GB	960	1/0.5
51) KZ	a610	1/0.5	76) AN	800	1D	103) KS	960	2/0.1
52) UF	610	5/1	77) LO	800	150	104) HK	960	1/0.25
53) BU	620	5/0.25	78) FW	a810	50/30d	105) ROO	a960	1
54) NK	**620**	**10/5**	79) UX	810	5D	106) IQ	a960	1
107) J	a970	10/5	152) AX	1270[1]5/0.5		200) CF	1410	1/0.5
108) O	a970[1]1		9) MH	1270	1/0.5	201) SP	1410	1/0.25
109) CJ	970	1/0.2	153) PV	1270	1/0.25	202) XJ	1410	1/0.5
17) DF	**970[1]5/1**		154) ZU	1270	1/0.25	203) F	1420[1]5/0.5	
110) OW	970	1/0.25	155) AG	1280	1	56) H	1420	1
111) VT	970	5/0.4	156) AW	1280	5/0.5	204) EW	1420	1D
112) KE	980	1/0.25	157) BW	1280	1/0.6	205) II	a1420[1]5/0.15	
113) LC	980	5/0.2	158) GJ	1280	1/0.25	206) WE	1420	5/0.17
114) NR	a980	5/0.5	159) AP	1290	1/0.1	207) XX	1420	2
115) TU	980[1]5/1		15) DA	1290	1	208) CZ	1430	1
116) XT	a980	1	160) IG	a1300	1	209) LL	1430	1/0.25
117) T	990[1]50D		161) LE	1300	1/0.15	210) LY	1430	1D
118) BC	990	1/0.1	5) SF	°a1300	0.5	211) OX	1430[1]5/0.5	
119) CL	a990	5	162) XW	1300	1/0.1	212) WD	a1430	2/0.15
3) OY	°1000[1]10		163) AM	1310[1]1/0.25		20) LZ	°1440	5/1
82) HL	1010	10/5	164) BP	1310	5/0.25	8) CM	°a1450	1/0.25
120) DX	a1010	1	165) FH	1310	1D	213) XD	a1450	1
121) TX	1010	1/0.25	166) HV	1310[1]1		214) JD	1450	1/0.25
122) VK	1010	10/1D	167) PO	a1310	1/0.25	117) JM	1450	0.75/0.25
123) WS	1010	5/0.25	168) VI	1310	1/0.5	215) NA	1450	1/0.25
20) QR	1030[1]10/1		23) RU	°1310	1/0.25	216) PP	1450	1/0.25
124) D	1050	10	82) TIA	1310	1/0.25	217) VH	1450[1]1/0.25	
125) G	a1050	100	169) AI	**1320**	**1/0.5**	211) HX	1460	1/0.25
13) DP	°1060	50D	170) RJ	a1320[1]5/0.5		218) JT	1460	1D
126) GY	1080	1/0.5	171) BO	1330	1D	219) LX	1460	10D
127) OD	a1090[1]1D		172) FC	1330	1	6) XQ	°1460	0.25
128) RB	1090	50D	173) RP	1330[1]1/0.1		220) YC	1460	1
129) WL	1090	2.5D	174) WQ	1330	1D	221) AU	1470[1]5	
10) RCN	°a1110[1]50D		175) CW	1340	1/0.2	175) CU	1470	0.25
130) CAM	a1110	1	176) JK	1340	1/0.25	222) DS	1470	1/0.2
131) LEO	a1110	1	177) LW	1340	1/0.25	223) SM	**1470**	**10/5**
132) TR	1120	1D	28) NV	1340[1]1/0.25		224) PR	1480	10/0.5
95) AD	1150[1]1/0.1		178) OS	a1340	1	225) NJ	1480	1/0.5
133) GE	a1150[1]1D		179) OM	1340	1/0.25	226) DR	1490	1/0.25
20) JP	**1150[1]10D**		15) QK	°**1350[3]1**		227) GT	1490	1/0.25
134) JS	1150	1/0.5	180) TB	1350	5/0.5	228) OB	1490	1/0.25
135) XZ	a1150	1/0.2	181) Y	1360	1/0.17	229) RA	1490	1/0.25
136) GR	1160	1D	182) KF	1360	1/0.5	230) RO	a1490	1
137) RT	1170	5D	183) SA	1360	1/0.5	21) RH	°**1500**	20D
138) FR	**1180**	**1/0.25**	184) A	1370	1	82) GD	1520	1D
10) WK	1190[2]50/10		185) HF	1370	5	181) NC	1540	1/0.25
17) B	°1220	100	186) MR	1370[1]1/0.5		230) BG	a1550	1
139) S	1240	1/0.25	187) XL	1370	10/0.1	231) JJ	1550	10
140) BN	1240	1/0.25	43) CO	1380	5	232) NU	1550	5D
141) BQ	a1240	1/0.25	188) GW	1380	1	233) RMK	1560	1/0.5
142) LD	1240	1/0.1	189) RK	1380	1/0.5	234) RX	1560	1/0.25
9) MQ	°1240	1/0.25	190) M	1390	1/0.5	235) RF	1570	250
143) RZ	1240	1/0.25	191) OR	a1390	1	236) DM	1580[1]50	
144) DK	1250	1	192) TL	1390	5	237) LI	a1580	1/0.25
145) DL	a1250[1]1/0.5		193) I	1400	1/0.25	238) NQ	1580	1/0.5
146) JX	1250	1/0.1	194) JL	1400	1/0.25	239) QL	a1580	1/0.1
147) PI	1250	1/0.1	195) TO	1400[1]1/0.25		211) NH	1590	1/0.2
148) SJ	1250	1/0.5	196) AB	a1400	1	22) MC	°**1590**	10/5
14) TF	°1250	0.5	197) TY	1400	1/0.25	240) BZ	a1590	1
149) L	**1260**	**10/1**	198) XB	1400	0.5/0.25	241) AE	a1600	1
150) R	1260	1/0.25	199) AS	1410	1/0.25	242) NY	1600	1D
151) MF	1260	1/0.25	3) BS	**1410[1]5/1**				

130 stations less 1kW not mentioned.

AKG, Austria: delivered studio equip. (recorders, microphones) XEMH R. Mérida, XEUP La Voz del Caribe, Mérida, XEEW La Voz del Bajo Bravo, Matamoros, XETK R. Emisora Occidente, Mazatlan, XELB R. La Barca, La Barca.
Continental Electronics, USA: delivered 1kW mw-tr. to Hermosillo, Sonora (XEDM), 10kW mw-tr. to Ci. Juarez (XFJ).

PRINCIPAL BROADCASTING NETWORKS

A) **Radio Programas de México** (with 100 Affiliated st's) – **Addr:** Bucareli 109, 4° piso, México, DF – **L.P:** Pres: C. Serna Martinez – **Owned and operated st's:** XEX, México City (with all sw, FM, and rel. st's); XERPM 660kc, México City; XEDK 1250kc, Guadalajara, Jal; XEMR 1370kc, XENL 860kc, Monterrey, NL.

B) **Radio Cadena Nacional** (with 65 affiliated st's) – **Addr:** Vallarta 1, 6° piso, México DF. Te: 469648 – **Key st:** XERCN 1110kc, México City – **D.Prgr:** All st's: 12.00–06.00 – **V.** by QSL-card.
The Mexican Go. requires all st's to carry "La Hora Nacional del Gobierno Méxicano" every Mo 04.00–05.00.

Short Waves:
1) Sria de Educación Pública, Dirección de Asuntos Indigenas, Sección Administrativa, México DF (Tr. at Semachique, Chih).
2) Gobierno del Estado de Jalisco, Casa de la Cultura, Guadalajara, Jal – **D.Prgr:** Mo 04.00–05.00 on all frq's.
3) Insurgentes Sur 1870, México DF – **L.P:** Dir. Gen: Lic. F. G. Salas F. Mgr: F. Ibarra L – **D.Prgr:** mw 24 h. **N:** Every h on the h and 13.30, 14.30 – **Ann:** "R. Mil, en los mil kc de su radio con música a su gusto" – **V.** by QSL-card or letter.

4) Av. Independencia 230, Veracruz, Ver – **L.P:** Dir. Gen, Dir. Tec: F. Pazos S – **Ann:** "El Eco de Sotavento desde Veracruz" – **V.** by letter. **Re.** in Sp.
5) Vasco de Quiroga y Mariano Elizaga, Morelia, Mich – **L.P:** Dir: J. Martinez R.
6) Apt. Postal 456, San Luis Potosi. **Te:** 52-52 – **L.P:** Dir. Gen: C. Martinez Bravo. Dir. Tec: J. Lomeli Saldivar – **D.Prgr:** W 16.00–05.00, Sun 13.00–01.00 – **Ann:** "Esta es R. Universidad Potosina" – **Int-Sig:**

V. by letter. Records accepted.

7) Rio de la Loza 196, México, DF – **L.P:** Dir. Gen: Sr. R. O'Farrill. Dir. Tec: Ing. F. Solis – **D.Prgr:** 24 h – **Ann:** "Desde México, XEX en el 730 de su radio, canal internacional y sus estaciones en León, Veracruz, Monterrey, Saltillo, Torreon, Guadalajara y San Luis Potosi" – XEX rel. st's (all 730kc): León 150kW, Veracruz 150kW and 5 st's of 0.5kW in Monterrey, Saltillo, Torreón, Guadalajara, San Luis Potosi. **FM:** XEX 101.7, 105.1, 106.1Mc (México City), 102.8Mc (Cerro del Samorano), XERPM 103.1Mc – **V.** by QSL-card or letter.
8) Apt. Postal 79, Ci. Mante, Tams – **L.P:** Dir. Gen: R. Lopez Mendez. Dir. Tec: L. Fernandez C – **N:** 21.00 – **Ann:** "Escuchan ustedes a XECM onda larga y XECMT onda corta, operando por una vida mejor en el campo de México transmitiendo simultaneamente desde Ciudad Mante, Tamaulipas, México" – **V.** by letter.
9) Apt. Postal 217, Merida, Yuc – **L.P:** Dir. Gen: R. Dominguez L. Dir. Tec: H. Padron M – **N:** Every h on the h – **V.** by letter – XEMH: **R. Merida**, Ca. 58 No. 493, Merida Yuc.
10) Cadena Radiodifusora Mexicana, S.A, Ayuntamiento No. 54, México, DF – **L.P:** Dir. Gen: B. Sancristóbal. Dir. Tec: J. Zepeda – **D.Prgr:** XEW: 12.00–05.45. Rel. mw-st's: XEWW (sw), XEWA San Luis Potosi, XEWB Veracruz, XEWK Guadalajara, XEWA Monterrey: **D:** 11.00–05.45. **N:** 06.25, 08.00, 08.45, 12.30, 14.30, 15.05, 19.00, 19.15, 19.40, 22.45, 22.55, 23.05, 23.25, 23.30. **Comm:** 08.50, 14.40, 15.15, 15.25, 19.10, 23.20. **Sport-N:** 08.10, 19.50, 22.40, 23.15 – **Ann:** "XEW y XEWW, La Voz de la America Latina desde México" –
11) Av. Norte núm. 9, Tapachula, Chis.
12) Apt. Postal 7892, México 4, DF – **L.P:** Dir. Gen: R. Cutberto Navarro. Mgr: E. Nassar Jr. Dir. Tec: E. Diaz G – **D.Prgr:** mw 24 h. **N:** every 5 min. before the h – **Ann:** "Aqui México...XERCN, Estacion Piloto de Radio Cadena Nacional..." – **V.** by letter.
13) Ca. de Bucareli, México, DF (inactive both sw and mw).
14) Apt. Postal 74, Veracruz, Ver. **Te:** 2-22-50 – **L.P:** Dir. Gen: J. de Dios Rodriguez D. Dir. Tec: L. Martinez – **N:** 13.15, 14.55, 03.15, and 5 min. before each h to 05.55 – **Ann:** "La Voz de Veracruz" – **V.** by QSL-card.
15) Dolores 10, Primer Piso, México, DF – **L.P:** Dir. Gen: G. Morales B. Dir. Tec: F. Gomez B – **D.Prgr:** mw 24 h – **Ann:** "XEQK y XETT, la unica hora exacta del Observatorio Nacional de Tacubaya" – **V.** by QSL-card or letter. **Re.** in Sp, E, G, F.
16) Oficinas Técnicas, Ci. Universitaria, México 20, DF. **Te:** 281157 – **L.P:** Dir. Gen: R. Lopez M. Dir. Tec: O. Velazquez G – **N:** 20.00, 05.00 – **Ann:** "Esta es R. Universidad Nacional de México transmitiendo simultaneamente en sus frecuencias de 860kc de onda larga, 9600kc de onda corta, Banda Internacional de 31.25m, y 96.1Mc de FM, desde sus estudios en la Ciudad Universitaria de la capital mexicana" – **V.** by letter.
17) Dr. Río de la Loza 182, 2° piso, México, DF. **Te:** 18-52-00 – **D.Prgr:** XEB (mw): 24 h. XEQ/XEDF (mw): 12.00–06.00. **N:** Every h on the h; on XEQ special music and news prgr. at 05.00–06.00 – **Ann:** On XEB: "En el 1220 de su radio, esta es XEB" or "Desde México, XEB en el 1220 de su radio, canal libre internacional". On XEQ: "XEQ desde México" – **V.** by QSL-card or letter.
18) Zacatecas 219, Condom, Yucatan, México, DF – **N:** 03.00 –
19) P.O. Box 68, Hermosillo, Son – **L.P:** Dir: J. R. Agraz **N** – **N:** Every h on the h – **Ann:** "XEBH, XEBR El Heraldo de Sonora desde Hermosillo" – **V.** by letter – **FM:** 90.2Mc.
20) Articulo 123 No. 90, México, DF – **XERC:** R. Popular de México. **XEQR:** Corporación Mexicana de Radio. **XEJP:** R. America – **D.Prgr:** 12.30–08.30. **N:** every h on the h – **FM:** 88.8Mc (XEJP), 97.7Mc (XERC), 107.3Mc (XEQR).
21) A.R.S.E. S.A, Quemada 40, Col. Narvarte, México, DF – **N:** 13.30, 20.45, 00.15, 04.00.
22) Independencia 59, esq. con Luis Moya, México, DF.
23) Domicilio Conocido, Chihuahua – **D.Prgr:** XEMP inactive.

Medium Waves:

24) **R. XEKL,** Zamora, 12 Jalapa, Ver – 25) **R. Mexicana de Mérida,** Ca. 64, No. 526, Mérida, Yuc – 26) **R. XEUC,** Barrio de Vixhama, Tehuantepec, Oax – 27) **R. XEBJB,** Monterrey, N.L.
28) **R. Fiesta (XEAR) & R. Alegria (XENV),** Ave. Madero Ote. 1114, 20° piso, Monterrey, NL – **D.Prgr:** 12.00–08.00. **N:** every half h – XENV-FM: 90Mc – 29) **R. XELQ,** Morelos Nte 68, Morelia, Mich.
30) **R. Impulsora de Culiacan,** Blvd. 50 Oriente, Culiacan, Sin – **FM:** XEBI 88.2Mc – 31) **R. Oaxaca,** Carlos Bustamente 17, Oaxaca – 32) **R. XETJ,** Av. Lerdo de Tejada 1564, Torreón, Coah – 33) **R. XEVX,** Morelos 58, Comalcalco, Tab.
34) **R. Guadalajara,** Av. Vallarta 1458, Guadalajara, Jal. **Te:** 4-73-31 – **L.P:** Dir. Gen: M. López Diaz. Dir. Tec: G. Jimenez M – **D.Prgr:** 12.00–08.00 **Spanish, English** – **Ann:** "XEAV, R. Guadalajara canal 58" – **V.** by QSL-card or letter – **FM:** 100.3Mc, 1kW – 35) **R. XEDZ,** Ca. 9 No. 58, Cordoba, Ver – 36) **Pregonero del Edo de Chihuahua,** Libertad 1302, Chihuahua.
37) **R. XEPH,** Ca. 14 No. 150, Ci. Victoria, Tams.
38) **R. XEMU,** Carranza 3, Piedras Negra, Coah – **FM:** 88.4Mc.
39) **La Voz de Chiapas,** Ca. Central 6, Tuxtla Gutiérez, Chis.
40) **R. XEE,** 20 de Noviembre 122 Pte. Durango, Dgo.
41) **R. XEFD,** Carretera a Matamoros, Rio Bravo, Tams – 42) **R. Hermosillo,** Rosales y Vildesolda, Hermosillo, Son.
43) **XEPH: R. 590 and XECO: R. Eco:** Insurg. Sur 1870, México 19, DF – **L.P:** Dir. Gen: E. Guillermo Salas – **D.Prgr: R. Eco:** 13.00–06.00. **English:** 13.30–14.30(W), 01.00–03.15(D exc. Sun, Mo). **French:** 04.15–04.45(Tues, Thurs, Sat). **German:** 00.15–01.00(Tues–Sat). **Italian:** 03.15–04.15(Tues–Sat). **R. 590:** 13.00–07.00 –
44) **R. Acapuco,** Morelos 3, Acapulco, Gro – 45) **R.Dif. del Norte,** Av. Juárez 1465 Pte, Torreón, Coah – **FM:** 88.1Mc – 46) **R. XEZ,** Mérida, Yuc – 47) **R. Coahuila,** Av. Carranza 168, Sabinas, Coah – **FM:** 88.2Mc – 48) **R. XEXV,** Francisco I, Madero 35, Ci. Valles, S.L.P – 49) **R. Guasave,** Zaragosa 45, Altoa, Guasave, Sin – 50) **R. ZEJA,** Pasaje Tanos, Ca. Enriquez, Jalapa, Ver.
51) **La Voz del Istmo Tehuantepec,** Domicilio Conocido, Tehuantepec, Oax – 52) **R. XEUF,** Portal Carrillo 8, Edif. Silva, Uruapan, Mich – 53) **R. ZEBU,** Ojinaga 118, Chihuahua, Chih.
54) **R. 620,** Balderas 32, México, DF – **L.P:** Dir. Gen: V. Blanco R. Dir. Tec: J. Durand – **D.Prgr:** 13.00–06.00 – **Ann:** "R. Sies Veinte, Emisora de la Juventud" – 55) **R. XEOO,** Lerdo 197, Pte, Tepic, Nayarit – 56) **Emis. Incorporadas** de Monterrey, 5 de Mayo Ote. 112, Monterrey – **D.Prgr:** 12.00–16.00.
57) **R. XEFU,** Hidalgo 36, Cosamaloapan, Ver – 58) **R. Emis. de Occidente,** Av. Angel Flores 42, Mazatlán, Sin – 59) **La Voz del Comercio de Zamora,** 5 de Mayo 30, Zamora, Mich – 60) **La Voz de la Peninsula,** Ca. 56 No. 508, Merida, Yuc.
61) **R. XEFJ,** Benito Juárez 86, Teziutlan, Pue – 62) **R. Soconusco,** Parque Infantil, Tapachula, Chiapas – 63) **R. Impulsora del Centro,** Pasaje de las Tullerias 1, León – 64) **R. del Pacifico,** Esq. Lerma y Bravo, Tijuana – 65) **R. XEDV (Zappan), XEWI (Chalapa),** Ave. Huarez 330, Desp. 207, Guadalajara, Jal – **D.Prgr: N:** every half h.
66) **R. XEON,** Jardin Sto. Domingo, Tuxtla Gutiérrez, Chis – 67) **La Voz Costeña desde Colima,** 27 de Septiembre 328, Colima – **L.P:** Dir: R. Vazquez Vda. de Levy. Dir. Tec: A. Vasquez S – **D.Prgr:** 11.00–06.00 – **V.** by letter. **Rp.**
68) **R. XEZZ,** Av. Juárez 595-2, Guadalajara – 69) **R. XEBI,** Madero 92, Aguascalientos, Ags – 70) **R. XEFE,** Aldana 2611, Nievo Laredo, Tams – 71) **R. ZEGZ,** Apt. Postal 6, Ci. Lerdo, Dgo – 72) **R. XENT,** Apt. 105, Col. del Sol, La Paz, BC – 73) **R. XESU,** Av. Zacatocas y Morelia, Mexicali, BC. **FM:** 88.1Mc – 74) **R. Tabasco,** Av. Pino Suárez 24-A, Villahermosa, Tab – 75) **R. XEMMM,** Tijuana, BC – 76) **R. Ocotlán,** Ninños Héroes 245, Ocotlán, Jal – 77) **R. de P. Negras,** Ca. 21 y Letra "K", Ci. Juárez, Chih – 78) **R. XEFW,** Madero 416, Ote, Tampico, Tams – **D.Prgr:** 12.00–04.00.
79) **R. XEUX,** Hidalgo y Progreso, Tuxpan, Nayarit – 80) **R. XEBA,** Guadalajara, Jal – 81) **R. Fortin,** Apt. Postal 4, Fortin de las Flores.
82) **R. Dia,** Paseo de la Reforma 139, México, DF – **D.Prgr:** 24 h –
83) **R. Metropolitana,** Paseo de la Reforma 139, México, DF – 84) **R. XETQ,** Sur 3 No. 2 Orizaba, Ver – 85) **R. XEM,** Chihuahua, Chih – 86) **R. XEZR,** Zaragoza, Coah – 87) see 65 – 88) **R. XEDU,** 20 de Noviembre 105, Pte. Durango, Dgo – 89) **R. XEMO,** Durango 10, Tijuana, BC.
90) **R. XENW,** Matamoros 14, Culiacán, Sin – 91) **R. XEMM,** Morelia, Mich – 92) **R. XEHO,** Guerrero 426, Ci. Obregon, Son.
93) **R. XEBM,** Jardin Hidalgo 15, San Luis Potosí, SLP – 94) **R. Culiacán,** Escobedo 226, Pte, Culiacán, Si – 95) **R. XEMJ,** Boulevard V. Carrenza 6, Piedras Negras, Coah – 96) **R. XEOK,** Xicotencatl 1051, Monterrey, NL – **FM:** 88.7Mc – 97) **R. XEWV,** Av. Madero 410, Mexicali, BC – **FM:** 89.6 Mc.
98) **R. XEGM,** Av. "G" 185, Tijuana, BC – 99) **Television Norteña,** Apt. Postal 16, Nueva Rosita, Coah – 100) **El Pregonero del Bravo,** Dr. Mier 2223 Altos, Nuevo Laredo, Tam. **D.Prgr:** W 12.00–06.00. Sun 14.00–20.00. **V.** by letter.
101) **R. XECS,** Zaragoza y Allende, Manzanillo, Col – 102) **R. XEGB,** 3a Hidalgo 37, Coatzacoalcos, Ver – 103) **Vocero del Norte,** Aldama y Zaragoza Lado Nte, Saltillo – 104) **R. XEHK,** Pedro Moreno 315, Desp. 203–205, Guadalajara, Jal.
105) **R. XEROO,** Chetumal, Quintana, Roo – 106) **R. XEIQ,** Cd. Obregón, Son – 107) **Mexican Broadc. Co,** Constitución 402, Ci. Juárez, Chih – 108) **R. El Callo,** Ca. 9a 95 entre Bravo y Buatamente, Matamoros.
109) **R. XECJ,** Apt. Postal 106, Apatzingan, Mich. **L.P:** Mgr: M. Flores E – **D.Prgr:** 11.55–04.00. **V.** by letter.
110) **R. XEOW,** 5 de Mayo 64, Mazatlán, Sin – 111) **R. XEVT,**

Zaragoza Sur 3, Villahermosa, Tab – 112) **R. Navojoa,** Morelos y Toledo, Navojoa, Son – 113) **R. XELC,** Av. Madero 116, La Piedad. **L.P:** Dir. Gen: H. Guizar C. Dir. Tec: L. Narez. **D.Prgr:** 12.30–05.00. **N:** 13.00, 03.00 – 114) **R. XENR,** Juárez Altos, Nueva Rosita, Coah. 115) **R. Centro Jaibo,** Apt. Postal 414, Tampico, Tams – **L.P:** Dir. Gen: Dr. A. A. Cantú. Dir. Tec: Ing. S. Lira R. **D.Prgr:** 12.00–06.00. 116) **Radiofonica de Nayarit,** Veracruz y Emiliano Zapata Pte. 164, Tepic, Nay – 117) **El Pregonero del Norte,** Jiménez Nte. 730, Monterrey, NL – 118) **R. Ciudad Guzmán,** Colon 52, Ci. Guzmán, Jal – 119) **R. XECL,** Av. Madero 621, Mexicali, BC – 120) **R. XEDX,** Ensenada, BC – 121) **R. Casas Grande,** Av. Porfirio Diaz y Minerva 400, Nuevo Casas Grandes, Chih – 122) **Emisoras de Torreón,** Av. Juarez 1465, Torreón, Coah – 123) **R. XEWS,** Rubi 57, Nte, Depto. 1, Guliacán, Sin – 124) **R. XED,** Av. Zacatecas, Entre C. 7a y 8a Mexicali, BC – 125) **La Voz de Norteamérica,** Hidalgo 426, Ote, Monterrey, NL. **D.Prgr:** 24 h. **English:** 00.30–12.00 – 126) **R. XEGY,** Av. Libertad 113–4, Tehuacán, Pue – 127) **R. Juventud,** Rayón e Indep. Edif. Literia Nacional, Desp. 401, Veracruz, Ver.

128) **Interamericana de Radio,** Edif. Calif, despacho 2, Tijuana, BC. 129) **R. Laredo,** Matamoros y Pino Suárez, Nuevo Laredo, Tams. 130) **R. XECAM,** Campeche, Camp – 131) **R. XELEO,** León, Gto. 132) **R. XETR,** Carretera México-Laredo 29 Sur, Ci. Valles, SLP.

133) **R. Comercial de Baja California,** Pesajo Regio Depto. 4 y 5, Edif. Padilla, Mexicali, BC – 134) **R. XEJS,** Colegio 14, Hidalgo del Parral, Chih – 135) **La Voz de Zacatecas,** Miguel Auza 10, Zacatecas 136) **R. Coatepec,** 16 de Septiembre 12, Coatepec, Ver – 137) **R. Televisora Siglo XX,** Av. Juárez 199 Sur, Reynosa, Tams – 138) **R. XEFR,** Isabel la Católica 33-117, México, DF – 139) **R. Televisora de Tampico,** Diaz Miron 310 altos, Tampico, Tams.

140) **R. Delicias,** Av. 4a y Ca. 4a Norte, Ci. Delicias, Chih – 141) **R. XEBQ,** Casa "T", No. 142, Empalme, Son – 142) **R. XELD,** Barra de Navidad, Autlan da Navarro, Jal – 143) **R. Televisora del Bajío,** Edif. "Seara", León, Gto.

144) **R. Televisora de Jalisco,** 16 de Septiembre 456, Guadalajara, Jal. **V.** by letter. Rp – 145) **R. XEDL,** Angel Flores 26, Ptes, Hermosillo, Son – 146) **R. Emis. Querétana,** Madero 18, Querétana, Oro – 147) **R. XEPI,** Carretera a Chilapa y Las Frondas, Tixtla, Gro. **L.P:** Dir. Gen: A. Peyron G. **D.Prgr:** 12.00–04.00.

148) **R. Saltillo,** Manuel Acuña Sur 102 "C", Saltillo, Coah – 149) **Capital Broadc. System,** Av. Reforma 400 Desp. 701, México, DF. **D.Prgr:** 24 h. **English:** 13.00, 02.00, 04.00 – 150) **R. Linares,** Carretera Nacional México-Laredo, Linares.

151) **R. XEMF,** Zaragoza 158, Monclova, Coah – 152) **R. XEAX,** Av. Manuel Garcia Vigil 5, Caxaxa, Cax – 153) **R. XEPV,** Mina 1, Papantla de Olarte, Ver – 154) **Promotoras de Radio,** Madere 15, Zacapu, Mich – 155) **La Voz de Córdoba,** Av. Uno 590, Córdoba, 156) **R. XEAW,** Parioutin 316, Sur Col. Roma, Monterrey, NL. **D.Prgr: N:** Every half h – 157) **R. Emis. del Norte,** Av. V. Carranza 514, Chihuahua, Chih – 158) **R. XEGJ,** Av. Juarez 171, Desp. 504, Guadalajara, Jal – 159) **R. XEAP,** Sinaloa 206, Ci. Obregón, Son – 160) **R. XEIG,** Iguala, Gro – 161) **R. XELE,** Muello 304, Sur, Tampico, Tams – 162) **R. XEXW,** Obregón 51, Nogales – 163) **R. XEAM,** Carretera Matamoros, Ci. Victoria, Matamoros, Tams.

164) **La Voz de la Laguna,** Cepeda Sur 409, Torreón, Coah – 165) **R. XEFH,** Ca. 5a y Av. Panamericana, Agua Prieta, Son – 166) **R. XEHV,** Aquiles Serdán 126, Veracruz, Ver – 167) **Ondas Populares,** Venustiano Carranza 4-A, San Luis Potosi.

168) **R. XEVI,** Juárez 26, Ote, San Juan del Rio, Oro – 169) **R. Aeropuerto,** Frey Servando Teresa de Mier 120, México, DF – 170) **R. Mazatlán,** Av. Juárez 117, Mazatlán, Sin – **FM:** 88.1Mc – 171) **La Voz del Centro,** Berriozabal 8, Irapuato, Gto – 172) **R. XEFC,** Ca. 64 No. 498, Merida, Yuc – 173) **R. XERP,** Alvare Obregón y 2 de Enere, Ci. Madero, Tams – **FM:** 88.5Mc – 174) **R. XEWO,** Hidalgo 229, Nte. Monclova, Coah – 175) **R. XECW/XECU,** R. O. Castro y Allende 302, Los Mochis, Sin – 176) **La Voz de Delicias,** Av. Agricultura y Ca. 4a Nte. 401, Ci. Delicias, Chih – 177) **R. XELW,** López Cotilla 769, Guadalajara, Jal – 178) **R. XEOS,** Cd. Obregón, Son – 179) **R. XEOM,** Zaragoza y Corregidora, Coatzacoalos, Ver.

180) **R. Laguna,** Apt. 225, Torreón, Coah – **D.Prgr:** 12.55–05.00. **V.** by letter – 181) **R. XEY,** Tres Guerras 44, Celaya, Gto – 182) **R. XEKF,** Altamirano 21, Iguala, Gro – 183) **La Voz de Sinaloa,** Av. Alvaro Obregón 39, Sur, Culiacán, Sin.

184) **R. XEA,** Ca. 12 No. 110, Campeche, Gam – 185) **R. Com. Sonorense,** Edif. Bco. Agric. Ganadero, Nogales, Son – **V.** by QSL-card – 186) **Propulsora del Radio,** Av. Madero y Venustiano, Monterrey, NL – 187) **R. XEXL,** Lote 14, Colonia Morelos, Patzcuaro, Mich – 188) **R. XEGW,** 13 Hidalgo y Juárez, Ci. Victoria, Tams – 189) **R. XERK,** Veracruz 609, Tepic, Nay.

190) **Mexican Broadc. Co,** Ojinaga 4106, Chihuahua, Chih – 191) **R. El Callo, Pedro** José Mendéz 154 Ote, Reynosa, Tams – **L.P:** Gen. Mgr: R. Olivares S. Dir. Tec: W. Sanchez L – 192) **La Voz de las Huaxtecas,** Independencia y P. Correo Viejo, Tuxpan, Ver – **L.P:** Owner: C. A. Barron. **D.Prgr:** 12.00–05.00 – 193) **R. XEI,** Portal Hidalgo 213, Morelia, Mich – 194) **R. XEJL,** Independencia 27, Guamúchil, Sin – 195) **R. Tiempo,** Emilio Carranza 320, Ote, Tampico, Tams – 196) **R. XEAB,** SantaAna, Son – 197) **R. XETY,** Tecoman, Col.

198) **Universidad Veracruzana,** Domicilio Concocido, Jalapa, Ver – 199) **R. XEAS,** Mina 5037, Nuevo Laredo, Tams – 200) **La Voz del Valle del Euerte,** Av. Obregón 204, Los Mochis, Sin – 201) **R. Impulsora de Occidente,** Ca. de Pedro Loza 31, Guadalajara – 202) **R. Televisora Tabasqueña,** Av. Juárez 15, Villahermosa, Ta – 203) **R. XEF,** 20 de Noviembre 504, Ci. Juárez, Chih – 204) **R. XEEW,** Edif. Card. Galván, Abasolo y Sexta, Matamoros, Tams – 205) **R. XEII,** Ca. 13a No. 205, Chihuahua, Chih – **L.P:** Dir. Gen: E. Rivas T. Dir. Tec: J. Sanchez H – **V.** by letter.

206) **R. Irapuato,** Apt. Postal 118, Irapuato, Gto – **D.Prgr:** 12.00–06.30 – 207) **R. XEXX,** Revolución y Octava, Tijuana, BC – 208) **R. Mexicanas,** Jardin Hidalgo 16, altos, San Luis Potosi – 209) **R. XELL,** Av. Independencia 231, local 4, Veracruz, Ver – 210) **R. XELY,** Morelos Nte. 68, Morelia, Mich.

211) **R. XEOX,** Veracruz 63, Sur, Ci. Obregón, Son – **XEHX:** R. Obregón – **XENH** (tr. at Escuinapa, Sin) – 212) **El Heraldo Fronterizo,** Alvaro Obregón 569, Ci. Miguel, Aleman.

213) **R. XEXD,** Atlixco, Pue – 214) **R. XEJD,** Hotel Poza Rica, Poza Rica, Ver – 215) **R. Emis. Querétana,** Madero 58, Querétano, Qro – 216) **La Voz de Orizaba,** Poniente 7, No. 57 altos, Orizaba, Ver – 217) **R. XEVH,** Alts Edif. Carcia Cárdenas, Ca. Hidalgo entre 10 y 20, Villa Hermoso, Tams – 218) **R. XEJT,** Diaz Mirón 106, Ote. Tampico, Tams – 219) **R. XELX,** Av. Revolucion 194, Zitácuaro, Mich – 220) **R. XEYC,** Av. 16 de Septiembre y Progreso, Ci. Juárez, Chih – 221) **R. XEAU,** Av. Carranza 1638, Tijuana, BC – 222) **R. Colima,** Apt. 147, Colima – **D.Prgr:** 13.00–01.00.

223) **El Heraldo del Chocolate Abuelita,** Rebsamen 241, Col. Narvarte, México, DF – 224) **R.fónica de Poza Rica,** Ca. 6 Nte, 2y Av. Central Ote, Poza Rica – 225) **R. XENJ,** Ave. Juárez y Allende, Edif. Maracán, Monterrey, NL – 226) **R. XEDR,** Av. Serdán 283, Altos, Guaymas, Son – 227) **R. Zamora,** 5 de Mayo 285, Sur, Zamora, Mich – 228) **R. Torreón,** Acuña Nte. con Narciso Mendoza Torreón, Coah – 229) **Nacional Radioemisora,** Ca. Libertad 1302, Chihuahua.

230) **R. XEBG,** Av. "C" 225 Altos, Tijuana, BC – 231) **R. 155,** Carrillo Puerto 6, Jalapa, Ver – **D.Prgr:** 12.00–06.00 – 232) **R. XENU,** Camargo 518, Nuevo Laredo, Tams – 233) **R. XERMK,** Ci. Satelite, Est. de Mexico – 234) **R. XERX,** Morelos 7, Salamanca, Gto – 235) **Cia R.dif. de Coahuila,** Prolongación Guerrero, Camino a San Carlos, Ci. Acuña, Coah – 236) **R. Pacífico,** Matamoros, Hermosillo.

237) **La Voz del Sur,** Km 213 Carretera México-Acapulco, Chilpancingo, Gro – 238) **R. Tulancingo,** Av. Juarez Sur 200-3, Tulancingo, Hgo – 239) **R. XEQL,** Apt. Postal 40, Zamora, Mich – 240) **R. XEBZ,** Villa de Meoqui, Chih – 241) **R. XEAE,** Guerrero y Ocampo 450, Ci. Acuña, Coah – 242) **R. XENY,** Nogales, Son.

NETHERLANDS ANTILLES

L.T: GMT÷4½ h – **Pr.L:** Papiamento.

CURAÇAO

RADIO CUROM (Foundation: "Çuraçaosche Radio Vereeiniging")
FI: Membership fees and adv – **ADDR:** P.O. Box 31, Willemstad, Curaçao. **Cable:** Curaver. **Te:** 12555 – **L.P:** Pres: C. G. Grootens. Mgr: A. Cloo. Dir. Tec: G. Reiche.
STATION: PJC-2 855kc 5kW.
HOME SCE: 11.00–03.30. Sun: 13.30–17.30, 21.30–03.30. **N: Dutch:** 11.30, 12.30, 15.00, 17.00, 20.30, 23.30, 02.30. **Papiamento:** 16.30, 22.30. **Sp:** Mo, Fri: 17.30–19.30. Wed: 01.30–02.30 – **L.L. (F):** Mo, Fri: 01.30.
ANN: E: "This is R. Curom in Willemsted, Curaçao Neth. Antilles". Dutch: "Hier is de Curom te Willemstad op Curaçao". Papiamento: "Aki ta Curom na Willemsted, Corsow" – **INT-SIG:** Part of the Curom-march, played by a big band – **V.** by letter. Rp.

RADIO HOYER (Cultural, Comm.)
FI: R. Hoyer 1 and 3 by adv. R. Hoyer 2 on cultural basis – **ADDR:** Julianaplain 21, Willemstad. **Cable:** Radioyer. **Te:** 11673 – **L.P:** Dir. Gen: H. E. Hoyer. Dir. Tec: E. G. Gillmoore.
STATIONS: PJC7 1010kc 1kW – PJC2 1500kc 1kW.
HOME SCE: W: 09.30–04.30. Sun: 12.30–03.30. Spanish, Papiamento on 1010kc, Dutch, English on 1500kc – **N: Spanish:** On the ½ h and 10.45, 11.45, 16.50, 22.00, 01.30. **Papiamento:** On the h and 13.30, 16.30, 22.30, 02.30. **Dutch:** on the h and 11.15, 13.30, 17.30, 21.45, 23.00. **English:** On the ½ h and 12.00, 15.30, 17.15, 01.30.
ANN: E: "This is station PJC7 R. Hoyer transmitting on..." – **INT-SIG:** First 3 bars of Curaçao's anthem – **V.** by QSL-card.

RADIO CARIBE (Comm.)
FI: By adv – **ADDR:** Nieuwestraat 22B, Willemstad. **Cable:** R. Caribe. **Te:** 12801 – **L.P:** Dir. Gen: C. R. Heillegger. Dir. Tec: G. A. T. Heillegger.
STATION: PJL3 1230kc 0.25kW – **HOME SCE:** W: 10.30–04.30. Sun. 12.30–04.30.
W: Papiamento & Spanish 10.30–01.00. **Dutch & English** 01.00–04.30. **Sun: English** 12.30–14.30. **Papiamento & Spanish** 14.30–22.30. **Dutch & English** 22.30–04.30. **N: Spanish:** W: 13.30, 17.30, 22.30, 00.45. Sun: 17.30. **Papiamento:** W: 16.45, 17.00, 17.15.

ANN: E: "This is R. Caribe broadc. on its assigned freq. of 1230kc 243.9m". Dutch: "U luistert naar R. Caribe te Willemstad Curaçao, op een frequentie van 1230 kiloperioden per seconde". Papiamento: "Oyentes ta na sintonia di P.J.L.3, R. Caribe, na Curacao, transmitiendo riba su frequencia di 1230kc, igual na 243.9m". Sp: "Transmite para ustedes la emisora P.J.L.3, Caribe, en su frequencia de 1230 kc, desde Curacao, Antillas Nederlandesa" – V. by letter. Records accepted – F.PL: 1kW 540kc.

ARUBA

RADIO KELKBOOM (Comm.)

ADDR: P.O. Box 9, Oranjestad. Cable: Kelkboom. Te: 1899 – L.P: Mgr: C. A. Kelkboom.
STATION: PJA5 1435kc 1kW – HOME SCE: W: 11.30–00.30. Sun: 14.30–02.30.
Dutch: D: 16.30–17.15, 23.45–00.30. Sun: 20.30–21.30. Mo: 22.00–23.30. Sun: 01.30–02.30. N: 17.00, 00.15 – English: W: 15.30–15.45, 17.15–17.35. N: 17.25 – Spanish: W: 14.30–15.00, 00.45–01.00. Sun: 16.00–16.30. N: 22.30 – Papiamento (N): 14.30, 16.35, 21.00, 22.30.
ANN: Dutch: "Hier PJA-5 R. Kelkboom te Orangestad Aruba". E: "This is PJA-5 R. Kelkboom at Orangestad, Aruba". Papiamento: "Ta transmite R. Kelkboom PJA-5 na Orange, Aruba" – V. by QSL-card. Rp.

RADIO VICTORIA (Sponsored and owned by the Evangelical Alliance Mission – Team)

FI: By comm. adv. and free will offerings – ADDR: Oranjestad. Cable: Team. Te: 7090 – L.P: Mgr: Rev. P. J. Pietsch. Dir. Tec: C. Jobes.
STATION: 900kc 10kW.
HOME SCE: W: 13.30–04.00. Sun: 11.30–01.30.
English: D: 17.00–19.15, 00.00–03.00. N: 17.00, 00.30, 02.30 – Dutch: W: 23.00–24.00. N: 23.00 – Papiamento & Spanish: 15.30–17.00, 19.15–23.00. N: 16.30, 22.30 – ANN: E: "This is R. Victoria, The Cultural Voice of the Caribbean". Sp: "Transmite R. Victoria, La Voz Cultural del Caribe". V. by letter. Rp. Records accepted.

VOICE OF ARUBA (Comm.)

ADDR: Van Leeuwenhoekstraat 12, Oranjestad – L.P: Dir: A. M. Arends Jr. Dir. Tec: D. Odor – STATION: PJA-10 1325kc 1kW.
HOME SCE. in Dutch, English, Spanish: 10.30(Sun 12.30)–02.30.
ANN: "You are tuned to Station PJA-10 – The Voice of Aruba" – INT-SIG: 4 strokes on a 4 metal bar percussion instrument – V. by QSL-card or letter.

RADIO ANTILLANA (Comm.)

ADDR: P.O. Box 28, St. Nicolaas. Te: 5602 – L.P: Mgr: H. E. A. B. Caruso. Dir: E. J. Prins. Dir. Tec: Peeren. Dir. English Dept: C. P. J. Celaire – STATION: 775kc 1kW.
HOME SCE. in Papiamento, English, Dutch: W: 09.30–03.00, Sun: 13.30–02.30. N: English: 10.40, 11.40, 22.30. N: Papiamento: 11.00, 12.00, 16.45, 21.30 – ANN: E: "This is R. Antiliana St. PJA-8 broadc. on a freq. of 775kc or 388m from studios located in lago heights, S. Nicolas Aruba, N.A." – V. by letter. Records accepted.

BONAIRE

THE VOICE OF BONAIRE (Comm.)

ADDR. & L.P: See R. Hoyer – STATION: PJB2 1385kc 1kW – HOME SCE: W: 11.30–18.30, 22.30–02.30. Sun: 14.30–17.30, 22.30–02.30.

TRANS WORLD RADIO (Cultural, Educational, Religious)

FI: Voluntary contributions from individuals, organisations, foundations, churches)
ADDR: Trans World Radio, Bonaire. Cable: Votan. Te: 440.
STATIONS: mw-st. 525/50kW to operate from Jan 1st 1964 with omnidirectional antenna; sw-st. 260kW to operate from April 1964 directed to Europe. Freq's not finalized – V. by QSL-card. Records accepted.

ST. MAARTEN

THE VOICE OF ST. MAARTEN (Comm.)

ADDR: P.O. Box 18, Philipsburg – L.P: Dir: N. C. Wathey. Dir. Prgr: S. A. Lejuez – STATION: PJD2 1300kc 0.25kW – HOME SCE: D: 10.00–02.30 – V. by letter. F.PL: 10kW.

NICARAGUA

L.T: GMT÷6 h – Pr.L: Spanish.
JEFATURA DEL RADIO NACIONAL, Apt. 209, Managua.
STATIONS: All st's comm. exc. 21) (Go.), 14) (Cultural), 15) (Rel.).
Short Waves: Call: YN—.

	Call	kc	m	kW	Name and h of tr.
1)	RG	5955	50.38	0.5	R. Zelaya, Bluefields
2)	WW	5965	50.28	0.5	R. Sport[6], Granada: 23.00–04.00
3)	X	6025	49.79	5	R. Equis, Managua
4)	LUA	6040	49.67	0.5	R. City, Managua: 12.00–06.00
5)	TP	6055	49.55	0.5	R. Puerto, Puerto Cabezas
10)	I	6130	48.94	1.5	R. Dif. León XIII, León
11)	W	6140	48.86	0.5	R. Mundial[1], Managua: 12.00–05.00
12)	MV	6150	48.78	1	R. Continental, Managua
13)	UW	6190	48.47	0.25	R. Dario[2], León
14)	JM	6200	48.39	1	R. Norte, Somoto
15)	OLA	15229	19.70	0.025	Ondas de Luz, Manague: 12.00–04.00

Medium Waves: Call: YN—. °=Short Wave.

6)	EQ	6065	49.46	0.6	R. Universal, Managua: 12.00–04.00
7)	RS	6085	49.30	0.5	Ondas Populares, León
8)	HC	6100	49.18	0.5	R. Hernandez Cordoba, Ocotal
9)	CA	6120	49.02	0.5	R. Atlantico, Bluefields

	Call	kc	kW		Call	kc	kW		Call	kc	kW
16)	G	555	1	27)	T	945	0.5	42)	WX	1270	2.5
3)	X	°570	5	28)	LU	965	1	43)	RA	1300	0.37
17)	BO	575	1	29)	CR	980	0.5	10)	HI	1310	2
18)	RD	590	2.5[2]	30)	Y	1000	3	44)	XZ	1320	0.2
19)	E	605	2.5	11)	W	1025	1[1]	45)	DM	1340	0.5
20)	M	620	10	31)	LL	1050	2[2]	46)	GF	1360	0.25
2)	XW	°650	1[1 2]	32)	TW	1070	0.17	3)	X	1370	1
21)	D	675	5	33)	AE	1090	1	47)	LM	1385	0.5
22)	SC	700	1	34)	Q	1100	3	3)	X	1400	1
23)	S	725	1	10)	L	1115	1	3)	X	1420	1
3)	X	°750	10	35)	RC	1130	10	48)	MS	1440	0.5
11)	W	775	1[1]	36)	BC	1150	0.8[2]	49)	TJ	1460	3.3
24)	R	800	1	37)	SB	1160	0.5	50)	AG	1475	2
15)	OL	°825	15	13)	UW	°1170	0.375[2]	51)	PT	1500	0.5
25)	MV	850	10	38)	C	1200	0.5	52)	CZ	1515	1
11)	W	°875	1[1]	39)	OP	1220	0.5	10)	P	1530	0.5
26)	WS	900	5	40)	CW	1240	3[2]	53)	RPS	1575	2
11)	W	°930	10[1]	41)	H	1250	1	54)	JG	1590	0.5

[1] R. Mundial Nicaraguan Radio Network – [2] R. Sports Network.
Short Waves: O=Owner.

1) Bluefields – L.P: O: R. Austin Gollopp.
2) Granada – L.P: O: M. Arana Valle.
3) Apt. 1505, Managua. Te: 5404. Cable: Tevenic – L.P: O: R. Cano G – D.Prgr: 12.00–06.00. N: 12.30, 19.30, 03.30 – Ann: "En Managua Nicaragua transmite Estacion Equis la Emisora favorita de la Juventud" – 4) Managua – L.P: O: L. F. Hidalgo.
5) Puerto Cabezas – L.P: O: R. Perez & Tejada – 6) Apt. 338, Managua – L.P: Dir: A. Solis H – 7) León – L.P: O: M. A. Solis – 8) Ocotal L.P: O: H. Gadea M – 9) Bluefields – L.P: Dir: S. de Mena.
10) León – L.P: O: H. Icasa Cia. (YNL Chinandega, YNHI Managua)
11) 5a Av. N. O. 703, Managua. Te: 3851 – L.P: Dir. Gen: M. Arana V. Dir. Tec: F. Arana V – D.Prgr: N: 12.00, 16.30, 19.30, 23.00, 04.15 – Ann: "R. Mundial transmitiendo desde los estudios de la Cadena Nicaraguense de Radiodiffusion en Managua, Nicaragua, Centro America" – FM: 92Mc (1kW), 100Mc (0.1kW).
12) Managua – 13) León – 14) Somoto.
15) Apt. Postal 607, Managua, D.N. – L.P: Dir: F. M. Doña – D.Prgr: Sp: 12.00–03.00, E: 03.00–04.00. N: 01.00, 04.00, 18.00 – Ann: Sp: "En sintonia con R. "Ondas de Luz", única emisora en el país sin anuncios comerciales con su lema "Orientando su camino con la luz de la Verdad", E: "You are in tune with the radio voice of YNOL "Waves of Lights", from Managua, the beautiful land of lakes and volcanos" – V. by QSL-card or letter.
Medium Waves:
16) R. Titania, Chinandega – 17) R. Musical, Masaya – 18) R. Quinientosnoventa, Managua – L.P: Dir: F. Arana V – 19) R. Uno, Managua – 20) Radiodif. Nacional, Edif. Benard, Managua. Te: 71173 – L.P: Dir. Gen: S. Cisneros Leiva. Dir. Tec: B. Guerrera – D.Prgr: 12.00–04.00. N: 12.30, 19.00, 03.15 – Ann: "Paz, Libertad, Progreso, transmite R. dif. Nacional de Nicaragua" – V. by letter. Rp.
21) Union Radio, Apt. 1148, Managua. Te: 4422 – L.P: Dir: R. Arroliga S. Dir. Tec: O. Meza Lira – D.Prgr: 24 h. N: 12.00, 16.30, 18.45, 22.00 – Ann: "Union Radio, La Onda Musical y Deportiva 675kc, Managua de la Cadena Inter-Americana WRUL de New York" – V. by QSL-card and letter – Pub: Prgr. sched. free on request.
22) R. Centauro, Managua – L.P: Dir: S. Cardenal A – FM: 89.0Mc.
23) R. Tic Tac, Chichigalpa – 24) R. Reloj, Managua – L.P: Dir: R. Arana Sandigo – 25) R. Continental, Av. Este 1200, Managua – L.P: Dir: M. Valle Q – 26) R. Alma Nica, Managua – 27) La Voz del Tuma, Jinotega – 28) R. Managua, Managua – 29) R. Mongalo, Rivas.
30) R. Mil, Managua – 31) R. Masaya, Masaya – 32) R. Centro, Granada – 33) R. Musun, Matagalpa – 34) La Voz de la Victoria, Managua.
35) R. Católica de Nicaragua, Apt. 1130, Managua, D.N. – L.P: Dir. Gen: F. Narciso de Arenys – D.Prgr: 12.00–03.00 – Ann: "Por Cristo y por su Iglesia, transmite YNRC, R. Católica de Nicaragua" – FM: 93.0Mc, 0.1kW – V. by letter – F.PI: 5kW sw-tr. July-August 1964.
36) La Voz de la Segovia, Esteli – 37) Estacion YNSB, Juigalpa.
38) R. Capital, Managua – 39) R. Cultural, Jinotepe – 40) R. Occidental, Chinandega – 41) Ondas de Nicaragua, Managua – 42) R. Atenas, León – 43) La Voz de Chinandega, Chinandega – 44) R. Cocibolca, Granada – 45) R. Sonora, Managua – 46) Ondas del Sur, Jinotepe.
47) R. Monumental, Boaco – 48) R. Philips, León – 49) El Eco de las Brumas, Jinotega – 50) R. Cosiguina, Chinandega – 51) Tierra Pinolera, Managua – 52) Estacion YNCZ, León – 53) R. Granada, Granada.
54) R. Colinas, Jinotega.

PANAMA

L.T: GMT÷5 h – Pr.L: Spanish.

GOVT. DEPT. JURISDICTION

ADDR: Direccion Tecnica de Radiocomunicaciones, Ministerio de Gobierno y Justicia, Apt. 3422, Panama. **Cable:** Dirgentel Radio – L.P: Tec. Dir. of Radiocommunications: Eng. F. A. Lamparero.

ASOCIACION PANAMENA DE RADIODIFUSION

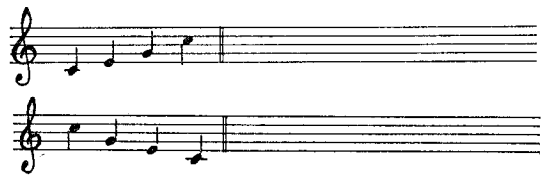
ADDR: Apt. 7387, Panama – L.P: Pres: J. L. Salas.
STATIONS: C=Circuito *=currently inactive.
All st's comm. exc. 1) (rlg), 19) (Cultural & Rlg), 20) (Mil).
Short Waves:

	Call	kc	m	kW	Name and h of tr.
1)	HOL21	*5960	50.34	0.6	R. Hogar, Panama
2)	HOM50	5995	50.04	1	C.R.P.C., Panama 11.55–05.00
3)	HP5K	*6005	49.96	1	La Voz de la Victor, Colon
4)	HP5B	6030	49.75	0.25	R. Cadena Miramar, Panama 11.00–06.00
5)	HOU31	6045	49.63	1	La Voz del Baru, David 11.00–04.00
6)	HORT	*6060	49.50	0.5	R. Selecta, Panama
7)	HOO	*6090	49.26	0.3	R. Independiente, Panama
8)	HP5H	*6122	49.00	0.5	La Voz del Pueblo, Panama
9)	HOQQ	*6140	48.86	0.5	R. Nacional, Panama
10)	HP5G	*6175	48.58	0.3	R. Panamericana, Panama
11)	HOLA	*9505	31.56	0.25	R. Atlantico, Colon
12)	HP6J	*9607	31.23	0.5	La Voz de Panama
13)	HOJ53	*9645	31.10	0.3	R. Mia, Panama
2)	HOF31	9685	30.98	1	Onda Popular, Pan. 11.55–05.00

Medium Waves: Call: HO—. °=Short Waves. *=FM.

	Call	kc	kW		Call	kc	kW
14)	N31	550	1	28)	B43	1050	1
2)	H2	560	0.25	12)	HPM21	1060	0.5
22)	O23	575	0.25	29)	D21	1070	0.25
2)	H3	590*	1	21)	G2	1090	0.25
2)	HM	610*	10	30)	R58	1100	0.25
16)	K	640	0.25	2)	F4	1120	1
13)	S22	645*	1	43)	J	1130	0.5
2)	H4	660*	1	31)	B49	1140	1
1)	LY	°670*	1	32)	S25	1150	0.25
17)	F32	680	0.5	33)	NZ	1170	0.25
10)	A	°700	1	34)	OC	1180	1
18)	X45	715a)	0.5	35)	E91	1210	4
4)	HP5C	°730	1	10)	W	1230	0.1
18)	X44	745a)	0.5	36)	M56	1240*	1
19)	XO	760	5	9)	Q	°1250	0.25
20)	ACA20	790	5	37)	J22	1270	0.15
2)	F33	810*	1	38)	JU	1280	0.25
21)	G	830	0.25	17)	S23	1295	1
14)	W32	840	1	11)	K3	1310	0.3
23)	HG	870	1	39)	L55	1315	1
23)	H33	880a)	0.25	31)	M92	1330	1
8)	HA	°900	0.5	18)	X24	1355a)	0.5
13)	S56	920a)	1	12)	HP5J	°1380	0.25
18)	X	940a)	0.5	11)	L	°1390	1
24)	B33	950	1	40)	HS	1400	1
2)	F	°965*	3	6)	RS	°1410	0.5
25)	R59	990	1	20)	ACB20	1420	1
15)	U44	1015*	1	16)	C	1440	0.25
2)	F2	1020	0.25	41)	D42	1460	0.25
5)	U	°1025	1	7)	OH	°1470	1
26)	U23	1030	0.5	3)	N	°1500	1
42)	S21	*1035b)	1	44)	A95	1505	1
27)	J2	1045	1				

a)=under construction - b)=inactive.
Short Waves:
1) Apt. 1979, Panama. Te: 3-5425. L.P: Dir. Gen: Rev. E. M. de Laburu S. J. Dir. Prgr: A. Rivera. Dir. Tec: M. Ah Chu. D.PRGR: 11.00–03.30. N: 11.00, 23.00. ANN: "R. Hogar, una emisora al servicio de la paz y la verdad". V. by letter. Re. in Sp, E.
2) Apt. 1795, Panama. Te: 5-0160. Cable: Erepece. L.P: Dir. Gen: F. Eleta A, Dir. Tec: L. O'Meally. C.R.P.C.: HOH2 Colon, HOH3 Chitre, HOHM Panama, HOH4 David – FM: HOH/HOH86 Panama, HOH87 Chitre. D.PRGR: N: 11.30, 15.30, 18.00, 23.00. Onda Popular: HOF33 Bocas del Toro, HOS47 Darien, HOF Panama, HOF2 Colon. FM: HOH88 Panama. ANN: "Onda Popular". V. by QSL-card. Re. in Sp. or E. – 3) Apt. 33, Colon. L.P: J. Jaén y Jaén.
4) Apt. 1214, Panama. Te: 30239. L.P: Dir. Gen: A. Boyd. St. Mgr: A. Jimenez, C. Boyd. Dir. Tec: L. Sosa. D.PRGR: 11.00–06.00 on 730/6030kc. N. 11.30, 18.00, 02.00. V. by QSL-card.
5) Apt. 160, David – 6) Apt. 4369, Panama – 7) Apt. 4545, Panama.
8) Apt. 1045, Panama. L.P: Mgr. Dir: M. Lombardo V. D.PRGR: 11.00–05.00 – 9) Apt. 552, Panama – 10) Apt. 1121, Panama.
11) Apt. 444, Colon. HOK3: La Onda de la Alegria. L.P: Dir: A. Galindo. V. by QSL-card.
12) HP5J/HP6J: Apt. 867, Panama. HPM21: La Voz de Ancon, Av. Central 169, Panama. L.P: Pres: M. Diaz Doce. Gen. Mgr: J. G. Diaz I. D.PRGR: 12.00–03.00. N: 12.00, 17.30, 23.30. ANN: "Desde Panama Puente del Mundo Corazon del Universo Transmite La Voz de Panama decana de las Emisoras Nacionales Compruebe su tiempo". V. by letter – 13) Apt. 5117, Panama. D.PRGR 10.00–04.30.
Medium Waves:
14) R. Aeropuerto, Apt. 4824, Panama. L.P: Pres: J. L. Salas.
15) R. Reloj, Apt. 5124, Panama. L.P: St. Mgr: A. D. Carrillo. D.PRGR: 24 h. N. every 20 min. ANN: "HOU44, 1015kcs Onda Larga, HOU44 FM 92Mc Alta fidelidad desde Panama, Capital de la Republica de Panama. Una emisora afiliada a la Asociacion Panameña de Radiodifusion. Un pueblo sin musica es un pueblo sin alma, por eso brindamos musica y mas musica."
16) Cadena Panameña de Radiodif, Apt. 33, Colon. L.P: as 3).
17) R. Centenario, Apt. 3, Puerto Armuelles. L.P: Dir: R. D. Gonzales. D.PRGR: 10.00–04.00. N: 12.00, 17.30, 23.00. ANN: "Por el bienestar de la Republica y la sactisfaccion del oyente en general transmite R. Centenario, emisora HOF32, en 680kc en su radio, esta su emisora es miembre de la Asociacion Panameña de Radiodifusion".
18) Panama. L.P: Dir: L. Chiari.
19) La Voz del Istmo, Apt. 3269, Panama. L.P: St. Mgr: R. Beukema. Dir. Tec: H. Erickson. D.PRGR: Spanish: 11.00(Sun 11.30)–04.00. English: W: 11.00–14.00, 01.00–04.00. Sun: 11.30–17.00, 00.45–04.00 – N: E. 11.45, 03.00. Sp. 15.00, 17.00, 22.00. ANN: E. "This is HOXO, the Voice of the Isthmus, 760kc in Panama" Sp. "Esta es La Voz del Istmo, 760kc en Panamá, HOXO". V. by QSL-card.
20) Caribbean Forces Network (AFRTS), Ft. Clayton, Canal Zone, ACA 20, Panama, ACB20 Colon.
21) Estacion de la Communidad, Apt. 1121, Panama HOG2: Ca. 101 9080, Colon. L.P: as 10). – 22) Radio Capital, Panamá.
23) R. Musical, Apt. 355, Panama. L.P: Dir: J. E. Sitton.
24) R. Cultura, Apt. 249, Concepcion – 25) R. Leblanc, 16 Oeste 13a–20, Panama.
26) R. Zarati, Av. Juan D. Arosemena, Apt. 5661, Penonome. L.P: Dir: R. Fernandez D. D.PRGR: 11.00–05.00.
27) Ondas del Canajagua, Apt. 10, Las Tablas. L.P: Gen. Mgr: S. Villareal Jr. D.PRGR: 24 h.
28) La Voz de Bocas del Toro, Bocas del Toro.
29) Ondas del Caribe, Av. Melendez y Roosevelt 8044, Colon. L.P: Owner J. M. Carrasquilla.
30) R. Mil Cien, Apt. 1100, Panama. L.P: Owner J. Arias.
31) Cadena Universal, Panama – 32) R. Mia de Colon.
33) Ondas Istmenas, Apt. 3237, Panama. L.P: W. Zurita.
34) C. de Ondas Chiricanas, Apt. 172. L.P: Owner: E. del C. Calvo.
35) R. El Mundo, Apt. 1566, Panama. L.P: Owner: M. P. de Valdéz.
36) R. David, Apt. 328, David. L.P: Owner: F. Moncada Luna.
37) Radio la Tribuna – 38) La Voz del Vigia, Aguadulce.
39) R. Reforma, Apt. 1201, Chitre. L.P: Owner: P. Solis Villalaz. D.PRGR: 11.00–04.00. N. 11.00, 11.50, 17.00, 18.00, 00.03 – INT-SIG: Gong. V. by QSL-card and letter.
40) Ondas Centrales, Santiago. L.P: Owner: H. Santacoloma.
41) La Voz de Almirante, Ca. 6a y Av. N, Almirante. L.P: Dir. Gen: N. O. Dosman H. D.PRGR: 16.00–19.00, 22.00–04.00. Sun 15.00–24.00 – N. 18.00. English: Mo 23.45, Tues 22.45, Wed/Fri 00.15, Sun 16.15. INT-SIG: Chimes.



V. by QSL-card and letter.
42) Victor Fomirandó, Panama – 43) R. Provincias, Chitré – 44) R. Variedades, Panama.

PUERTO RICO (U.S. Territory)

L.T: GMT÷4 h – Pr.L: Spanish, English.

BROADCASTERS ASSOCIATION OF PUERTO RICO

ADDR: P.O. Box 10144, Santurce.
STATIONS: All st's comm. exc. 11) – St's allowed to operate as many h's as they wish. [1]=also FM.

Call	kc	kW	Call	kc	kW	Call	kc	kW
1) WPAB	550	5/1	8) WKVM	810	25	15) WRJS	1090	0.25
2) WKAQ	580[1]	5	9) WABA	850	0.5	16) WVJP	1110	0.25
3) WAEL	600	1	10) WPRP	910	5	17) WITA	1140[1]	0.5
4) WKYN	630	1	11) WIPR	940[1]	10	18) WORA	1150[1]	1
5) WAPA	680	10	12) WPRA	990	10	19) WLEO	1170	0.25
6) WKJE	7101/0.5		13) WITA	1030	1	20) WNIK	1230	0.25
7) WIAC	730	10	14) WMIA	1070	0.5	21) WALO	1240	0.25

Call	kc	kW	Call	kc	kW	Call	kc	kW
22) WISO	1260	1	27) WIVV	1370	1	32) WMDD	1490	0.25
23) WCMN	1280	1	28) WISA	1390	1/0.5	33) WMNT	1500	0.25
24) WTIL	1300	1	29) WHOA	1400	0.25	19) WKFE	1550	0.25
25) WUNO	1320	5/1	30) WEUC	1420	1	34) WRSJ	1560	5
26) WGFR	1340	0.25	31) WNEL	1430	1/0.5	35) WXRF	1590	1

D.PRGR: 10.00 to approx. 04.00, exc. where indicated.
1) **R. WPAB,** P.O. Box 786, Ponce. **L.P:** Mgr: A. Gimenez Jr. – **D.PRGR:** 10.00–02.00. **English:** 15.30–18.00. **V.** by letter.
2) **El Mundo Broadc. Corp,** 654 Ponce de Leon Av, San Juan.
3) **R. WAEL,** Box 297, Mayaguez – 4) **Quality Broadc. Corp,** Rio Piedras – 5) **R. WAPA,** Box 4563, San Juan.
6) **R. WKJB,** Box 1293, Mayaguez. **L.P:** Mgr: J. A. Bechara Jr.
7) **R. WIAC,** 261 Ponce de Leon Av, San Juan. **L.P:** Mgr: T. Muniz.
8) **American Colonial Broadc. Corp,** Box 4189, San Juan.
9) **R. WABA,** Box 188, Aguadilla. **L.P:** Mgr: F. Bonnet.
10) **Voice of Puerto Rico,** Box 430, Ponce. **L.P:** Mgr: A. R. de Arellano – **ANN:** "Transmite WPRP, Ponce, Puerto Rico, 910kc en el cuadrante de su radio."
11) **Dept. of Education of P.R,** P.O. Box 909, Hato Rey – **L.P:** Dir. Gen: J. Delano. **D.PRGR:** 11.00(Sun 12.00)–02.15. **N:** 14.00, 16.00, 19.00, 22.00. **ANN:** "These are r. st. WIPR and WIPR-FM in San Juan, Puerto Rico". **V.** by QSL-card.
12) **R. WPRA,** Box 869, Mayaguez. **D.PRGR:** 24 h.
13) **Electronic Enterprises Inc,** San Juan.
14) **Abacoa Radio Corp,** Barrio San Daniel, Insular rd 2, Arecibo. **L.P:** Mgr: C. M. Pirallo. **D.PRGR:** 09.30–04.00.
15) **R. Station WRSJ,** San German – 16) **Borinquen Broadc. Corp,** Box 207, Caguas. **L.P:** Mgr: H. Pereira. **D.PRGR:** 12.00–03.00.
17) **Electronic Enterprises Inc,** Box 2792, San Juan. **L.P:** Mgr: M. A. Suarez. **D.PRGR:** 04.00–16.00.
18) **Radio Americas Corp,** Box 43, Mayaguez. **L.P:** Mgr: R. M. Dupont. **D.PRGR:** 10.00–02.00.
19) **Ponce Broadc. Corp,** Box 1526, Ponce. **L.P:** Mgr: C. Cordero. Dir. Tec: J. H. Conesa. **D.PRGR:** 09.30–04.00. **V.** by QSL-card.
20) **Arecibo Radio Corp,** Box 1075, Arecibo. **L.P:** Mgr: L. E. Freyre. **D.PRGR:** 10.00–03.00. **V.** by letter. **Rp.**
21) **R. WALO,** Desengano Str, Humacao. **L.P:** Mgr: A. L. Ochoa.
22) **South P.R. Broadc. Corp,** Box 2023, Ponce.
23) **Caribbean Broadc. Corp,** Box 7, Arecibo. **L.P:** Mgr: N. Barreto.
24) **Mayaguez Radio Corp,** Box 1346, Mayaguez. **L.P:** Mgr: G. Mamary – **D.PRGR:** 10.00–04.00. **V.** by QSL-card or letter.
25) **San Juan Broadc. Corp,** Box Q, Hato Rey.
26) **Jaicoa Broadc. Corp,** Box 863, Aguadilla.
27) **Calvary Baptist Mission of P.R,** Box 338, Vieguez Island. **L.P:** Dir. Gen: D. Luttrell. Dir. Tec: G. Carr. **D.PRGR:** 09.30–03.00. **N:** 11.00, 17.00, 23.00, 02.00. **V.** by letter.
28) **R. Station WISA,** Isabela. **L.P:** St. Mgr: R. Santiago. Dir. Tec: C. Rodney. **D.PRGR:** 10.00–03.00. **V.** by letter.
29) **Continental Broadc. Corp,** 566 Poncé de Leon Av, San Juan. **L.P:** Mgr: W. R. Anthony. **D.PRGR:** 10.30–05.00.
30) **Catholic University of Puerto Rico,** Service Assn. Campus, Poncé. **L.P:** Rev: W. E. Alvarez.
31) **Atlantic Broadc. Corp,** Box 487, Caguas. **L.P:** Mgr: M. Diaz Collazo. **D.PRGR:** 24 h. **N:** Every h on the h. **F.PL:** 5kW.
32) **R. WMDD,** Box 387, Fajardo. **D.PRGR:** 10.00–02.00 – 33) **R. St. WMNT,** Manati.
34) **R. San Juan,** P.O. Box 5627, San Juan. **L.P:** Gen. Mgr: J. Morales. **D.PRGR:** 09.30–05.00. **N.** & **Wrp:** Every h on the h.
35) **Guayama Broadc. Co,** Hostos 42-N, Guayama. **L.P:** Mgr: G. Cordero Jr. **D.PRGR:** 10.30–03.00. **V.** by QSL-card.
36) **Fidelity Broadc. Corp,** J-one-Violeta Str, Rio Piedras.
37) **P.R. Music Services,** P.O. Box 5369, Puerto de Tierra.
38) **Supreme Broadc. Co. of P.R. Inc,** First Federal Bldg, Stop 23, Santurce, San Juan – 39) **Bestov Broadc. of P.R. Inc,** Box 4504, San Juan.
ARMED FORCES RADIO & TV SCE: see USA.

SWAN ISLAND

L.T: GMT÷6 h – **Pr.L:** English, Spanish.
RADIO AMERICAS (Comm.)
ADDR: P.O. Box 352, Miami 1, Fla.
STATIONS: 1165kc 257.5m 50kW – 6000kc 50.00m 7.5kW – 11800kc 25.42m 7.5kW – **D.PRGR's in Spanish & English:** 10.00–13.00, 17.30–19.00, 20.00–05.00 – **English:** 23.00–23.30. Other times Spanish.
ANN: E: "This is R. Americas, the Voices of truth for all the Continent". Sp: "Esta es R. Americas, La Voz de la Verdad para todo el Continente".

TRINIDAD

L.T: GMT÷4 h – **Pr.L:** English.
RADIO TRINIDAD (Comm.)
FI: By adv – **ADDR:** Broadc. House, 11B, Maraval Rd, Port-of-Spain. **Cable:** Broadcast. **Te:** 21151 – **L.P:** St. Mgr: P. E. M. Hesketh. Dir. Tec: E. R. Mc Dowell.
STATIONS: 730kc 410m 20kW – FM: 95.1Mc 1kW.
HOME SCE. in English: D 10.00–03.00 *=Wrp.
N: 10.45*, 11.00(BBC), 12.00*, 13.00(BBC), 15.00, 16.00(BBC), 16.30*, 18.00, 20.00(BBC), 22.00, 23.45*, 02.00(BBC).
ANN: "This is R. Trinidad, first with the news" – **V.** by QSL-card. **Rp.**
RADIO GUARDIAN (Comm.)
FI: By adv – **AD:** 10 min. per h exc. during 90 min. reserved for Go. use
ADDR: 17 Abercromby Street, Port of Spain. **Cable:** Voice. **Te:** 32618.
L.P: St. Mgr: P. Pitts. Dir. Tec: F. Thomson.
STATIONS:
610kc 10kW – FM 98.9Mc 0.25kW.
HOME SCE. in English: 11.00–04.00.
N: on the h – **Wrp:** On the ½ h – **ANN:** "This is R. Guardian, The Voice of Trinidad, Tobago" – **V.** by letter.
ARMED FORCES RADIO & TV SCE: see USA.

TURK & CAICOS ISLANDS (British)

L.T: GMT÷5 h – **Pr.L:** English.
RADIO STATION VSI8 – **ADDR:** British Cable & Wireless Ltd. Grand Turk – **L.P:** St. Mgr: E. Hale. Dir. Tec: J. H. Richards.
STATION: VSI8 4560kc 65.79m 0.2kW – **D.PRGR:** N. in English 18.30–18.40.
ANN: "R. St. VSI8 owned and operated by Cable & Wireless. (W.I.) Ltd" – **V.** by letter.

VIRGIN ISLANDS (American)

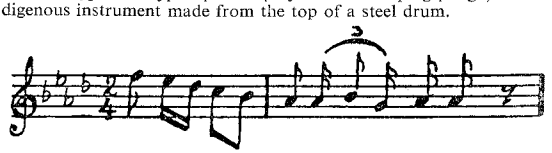
L.T: GMT÷4 h – **Pr.L:** English.
ST. CROIX – RADIO AMERICAN WEST INDIES, INC. (Comm.) – **ADDR:** P.O. Box 931, Christiansted, St. Croix. **Cable:** RAWI. **Te:** 223 – **L.P:** Pres: Mrs. H. M. Higdon. Dir. Tec: R. E. Higdon – **STATION:** WIVI 970kc 1kW: D 09.00–04.00 – **D.PRGR: N: English:** every h on the h – **Spanish:** 18.00–20.00 – **V.** by QSL-card – **F.PL:** 5kW+FM.
ST. THOMAS – R. STATION WSTA (Comm.) – **ADDR:** P.O. Box 538, Charlotte Amalie, St. Thomas. **Cable:** WSTA. **Te:** 774 – **L.P:** Pres: W. M. O'Neil. Gen. Mgr: L. Stein – **D.PRGR:** 10.00–04.00 on 1340kc 0.25kW – **V.** by letter. Records accepted – **F.PL:** 1kW.
R. STATION WBNB (Comm.) – **ADDR:** Box 1947, St. Thomas. **Te:** 1050. **Cable:** WBNB – **L.P:** Pres: R. Moss – **HOME SCE:** 1000kc 1kW: 10.30(Sun 12.00)–04.00.

WINDWARD ISLANDS

L.T: GMT÷4 h – **Pr.L:** English.
WINDWARD ISLANDS BROADCASTING SERVICE (Go.)
FI: By state and by license fees – **ADDR:** St. George's Grenada, W.I. **Cable:** Broadcasts. **Te:** 4251 – **L.P:** Man. Dir: A. C. G. Palmer, M.B.E. Dir. Tec: R. A. Smith, Memb. I.R.E.E.
HOME SCE: a) Grenada, b) Dominica, c) St. Vincent, d) St. Lucia.

St. George's	a)	540	556.0	0.5	15.45–17.45, 19.59–02.15
Roseau	b)	1530	196.0	0.025	
Kingstown	c)	1575	191.0	0.025	
Castries	d)	1580	190.0	0.025	
St. George's	*	3280	91.40	5	22.30–02.15
–	*	5010	59.88	5	15.45–17.45, 20.00–02.15
–	*	6080	49.34	5	
–		9595	31.27	0.25	01.30–02.15
–		15085	19.89	5	20.00–22.00(W)

* to Eastern Caribbean.
N: (BBC) 16.00, 20.00, 23.00. **Local:** 16.40, 17.15, 20.30, 22.30, 23.45, 02.00.
OVERSEAS SCE. (to British Isles) on 15085kc during the period 18.00–22.30 as required for special broadcasts: non daily.
ANN: "This is the Windward Islands Broadcasting Service" – **INTSIG:** A typical calypso phrase played on the "ping-pong", an indigenous instrument made from the top of a steel drum.



V. by QSL-card. **Rc:** below 9Mc not wanted. Above 9Mc wanted. Answered to best of ability due very limited staff – **PUB:** Prgr.-sched. (weekly).
RADIO CARIBBEAN (Comm.)
FL: By adv – **AD:** Max. 10 min. per h – **ADDR:** P.O. Box 121 Castries St. Lucia, W.I. **Cable:** Caradio. **Te:** 405 – **L.P:** Mgr: T. K. Archer.
STATION: 840kc 10kW.
HOME SCE. in English, French: 11.00(Sun 13.00)–01.00. **N:** Every h on the h in French. English: 13.00, 20.00(BBC) – **L.L:** "Keep up your

English": Tues, Thurs, Sat 22.00 – **ANN:** E: "This is R. Caribbean International St. Lucia operating on freq. of 840kc in the medium wave band". F: "Ici R. Caraibes International, St. Lucie, emettant sur 840kc" – **V.** by letter Rp.

SOUTH AMERICA

ARGENTINA

L.T: GMT÷3 h – **Pr.L:** Spanish.

SECRETARIA COMUNICACIONES

ADDR: Sarmiento 151, Capital Federal. **Cable:** Gentel Baires. **Te:** 49-9558 – **L.P:** Secr. of Comunicacions: M. A. Perez Tort. Vice-Secr: A. Portineri. Dir. Gen: A. M. Pochintesta.

R. NACIONAL (Go.)

ADDR: Ayacucho 1556, Buenos Aires. **Te:** 84-2021 – **L.P:** Dir. Gen: L. A. Quesada. Dir. Tec: J. M. Serrano.

HOME SERVICE: Short Waves:

Call	kc	m	kW	Name and h of tr.
LRA31	6060	49.50	16	Buenos Aires: 11.00–04.00
LRA34	6180	48.54	10	Mendoza: 13.00–03.00
LRA33	15345	19.55	100	Buenos Aires: 13.00–18.30

Medium Waves: °=Short Wave.

Call	kc	kW	Name	h of tr.
LRA10	620	5	Ushuaía	13.00–17.00, 21.00–02.00
LRA9	670	5	Esquel	11.00–18.00, 21.00–03.00
LRA4	690	10/5	Salta	13.00–03.00
LRA3	730	20/5	Santa Rosa	13.00–03.00
LRA7	750	50	Córdoba	11.00–03.00
LRA8	780	5	Formosa	12.00–03.00
LRA	°870	100	Buenos Aires	11.00–04.00
LRA11	900	5	Comodoro Rivadavia	13.00–17.00, 23.00–03.00
LRA6	°960	20/5	Mendoza	12.00–03.00
LRA5	1310	5	Rosario	11.00–03.00

The Marconi Company Ltd, delivered: Mw-tr's 2×100kW, 1×20kW, 1×5kW.

AKG, Austria: delivered studio equip. (recorders, microphones).

D.PRGR: N: 12.00, 16.00, 24.00 – **V.** by QSL-card.

INTERNATIONAL SERVICE

ADDR: Radiodif. Argentina al Exterior (RAE), Sarmiento 151, Buenos Aires – **L.P:** Dir: A. Cristiani.

TO EUROPE:

Spanish 19.00–20.00 on 11710kc, **German** 20.00–21.00 on 11780kc, **Italian** 21.00–22.00 on 6090kc, **French** 22.00–23.00 on 11710kc, **English** 23.00–23.45 on 11710kc.

To Eastern NO. AMERICA:

Portuguese 00.00–01.00 on 9690kc, **Spanish** 01.00–03.00 on 9690, 11780kc, **English** 03.00–04.00 on 6090, 9690, 11780kc.

To Western NO.AMERICA:

Spanish 04.00–06.00 on 9690kc, **English** 06.00–07.00 on 6090, 11780kc.

Prgr's: N. Argentina music, Folk Music, Mailbag (every Thurs). **ANN:** Sp: "Aqui Argentina" G: "Hier spricht Argentinien" I: "Qui Argentina" F: "Ici l'Argentine" E: "This is Argentina Calling" P: "Aqui Argentina" – **V.** by QSL-card.

OFFICIAL STATIONS (Go.)

Call	kc	kW	Call	kc	kW	Call	kc	kW
1) LS1	710	50	4) LS11	1270	50	7) LR11	1390	5/2.5
2) LU14	730	5	5) LV17	1360	0.25	8) LT10	1430	1.5/0.5
3) LT17	1250	5/2	6) LV18	1370	0.25	9) LT19	1550	0.25

1) **R. Municipal,** Arturo Toscanini 1168, Buenos Aires – **D.Prgr:** 09.00–05.00 – **L.P:** V. Tedín.

2) **R. Provincia de Santa Cruz,** Roca 825, Rio Gallegos – **D.Prgr:** 11.00–05.00 – **L.P:** J. Grumblat.

3) **R. Provincia de Misiones,** Casa de Gobierno, Posadas, Misiones.

4) **R. Provincia de Buenos Aires,** Ca. 10 y Av. 53, La Plata. **Te:** 3-9158 – **L.P:** Dir: M. Eloy del Río. Dir. Tec: M. Angel Cadut – **D.Prgr:** 10.00–03.00 – **V.** by QSL-card or letter.

5) **R. Municipal de Córdoba,** Marcelo T. de Alvear y 27 de Abril, Córdoba – **L.P:** Dir: E. Yantorno – **D.Prgr:** 11.00–23.30.

6) **R. Municipal de San Rafael,** San Rafael, Mendoza – **L.P:** Dir: A. Maslup – **D.Prgr:** 13.00–17.00.

7) **R. Universidad Nacional de La Plata,** Plaza Rocha 133, La Plata – **L.P:** Dir: J. Sager – **D.Prgr:** 19.00–03.00.

8) **R. Universidad del Litoral,** 9 de Julio 3550, Santa Fé – **L.P:** Dir: L. Bonaparte – **D.Prgr:** 15.00–04.00.

9) **R. Municipal de Santo Tomé,** Santo Tomé, Corrientes.

COMMERCIAL STATIONS

ASOCIAÇION RADIODIFUSORAS PRIVADAS ARGENTINAS (A.R.P.A.)

ADDR: Cangallo 1561, Buenos Aires. **Cable:** Arpair. **Te:** 354412. **L.P:** Pres: H. E. Long.

COMISION ADMINISTRADORA DE EMISORAS COMERCIALES Y TV – ADDR: Cerrito 941, Buenos Aires. **Te:** 42-0411.

Short Waves: Location: Buenos Aires.

Call	kc	m	kW	Name	h of tr.
1) LRS2	5985	50.13	20	R. Splendid	10.00–02.00
2) LRY1	6090	49.26	40	R. Belgrano	10.30–11.05, 14.45–07.00
3) LRX1	6120	49.02	10	R. El Mundo	11.00–04.00
3) LRX	9660	31.06	7	R. El Mundo	09.00–12.45
3) LRX2	9710	30.90	7	R. El Mundo	13.00–04.00
1) LRS1	9740	30.79	20	R. Splendid	10.00–02.00
2) LRY2	11780	25.47	7	R. Belgrano	09.00–16.45, 19.00–22.00 01.00–07.00
1) LRS	11880	25.25	1	R. Splendid	10.00 02.00
3) LRU	15290	19.62	10	R. El Mundo	09.00–10.45

Medium Waves: °=Short Wave. *=Under construction.

Call	kc	kW	Call	kc	kW	Call	kc	kW
4) LV1	560	10/3	1) LR4	°910	50	47) LV13	1250	5
5) LT15	560	5/3	2) LR3	°950	50	48) LT9	1260	5/2.5
6) LW1	580	10/5	27) LW8	960	20/5	49) LT11	1300	3/1.5
7) LV12	590	10/5	28) LV2	970	15/5	50) LU13	1300	3/1.5
8) LS4	590	10/5	29) LR5	990	50	51) LU6	1320	5
9) LU8	590	5/1	30) LT4	1010	3	52) LT14	1330	5/2.5
10) LV10	620	20/5	31) LV16	1010	2.5	53) LU11	1340	0.25
11) LS5	630	20/4	32) LS10	1030	10/5	54) LS6	1350	20/5
12) LV14	630	5/1.5	3) LR1	°1070	50	55) LT12	1360	3/1.5
13) LU4	640	5	33) LT5	1080	5	56) LT16	1370	3/1.5
14) LV15	640	1	34) LV5	1090	15/5	57) LU17	1430	0.25
15) LU9	670	10/1	35) LR2	1110	20/5	58) LU15	1440	0.25
16) LT7	670	5/1	36) LU7	1120	10/5	59) LU16	1460	0.25
17) LU12	680	5	37) LU5	1130	20/5	60) LW2	1460*	0.25
18) LV6	680	10/5	38) LV3	1150	10	61) LT13	1470*	0.25
19) LV4	690	1	39) LT3	1160	10/5	62) LU19	1470*	0.25
20) LW7	730	5/1	40) LV11	1170	5	63) LW4	1510*	0.25
21) LV8	780	10/5	41) LR9	1190	5	64) LU18	1510*	0.25
22) LR6	790	50	42) LW3	1190	10/5	65) LU20	1510*	0.25
23) LU2	820	10/5	43) LU10	1200	3	66) LU21	1510*	0.25
24) LT8	830	10/5	44) LT6	1200	1	67) LT18	1550*	0.25
25) LV9	830	10/5	45) LT2	1230	15/5			
26) LV7	900	10/5	46) LU3	1240	10/5			

AKG, Austria: delivered studio equip. (recorders, microphones) to LR2, LR4, LR5, LS1, LU2, LS5, LU10.

Short Waves:

1) Uruguay 1237, Buenos Aires – **L.P:** Dir: A. P. Serigos. Dir. Tec: E. Grazziani – **D.Prgr:** 09.30–05.00. **N:** 10.00, and every h on the h from 11.00 – **Ann:** "LR4, R. Splendid de Buenos Aires, con sus ondas cortas, LRS, LRS1 y LRS2 de la Red Argentina de Emisoras Splendid" **Int-Sig:** 4 notes on electronic gong – **V.** by letter.

2) Cerrito 941, Buenos Aires – **L.P:** Dir: C. Mileo. Dir: Tec: M. Koebler – **D.Prgr:** 09.00–04.15. **N:** 09.00, 11.00, 15.00, 16.00, 20.00, 22.00, 01.00, 03.00, 04.00 – **Ann:** "Transmite LR3 R. Belgrano de Buenos Aires, con sus ondas cortas LRY, LRY1 y en circuito de Emisoras" – **Int-Sig:** 4 notes on vibraphone – **V.** by QSL-card.

3) Maipú 555, Buenos Aires – **L.P:** Dir: R. Garmendia. Dir. Tec: C. Cutler – **D.Prgr:** 09.00–04.00 – **Foreign Sce: English, Spanish, Portuguese:** D 14.00–15.00 on 6120/15290kc, 04.00–05.00 on 6120/9710kc – **Ann:** "LR1, R. El Mundo de Buenos Aires y su Red Azul y Blanca de Emisoras Argentina" – **Int-Sig:** Gong – **V.** by OSL-card. **Medium Waves: D.Prgr's:** 10.00–04.00 exc. where indicated.

4) **R. Colon,** Mendoza 369, San Juan – **L.P:** Dir: J. Graffigna – **V.** by letter. Records accepted.

5) **R. Concordia,** La Rioja 622, Concordia – **L.P:** Dir: C. Pinola – **D.Prgr:** 09.30–03.00. Sat 09.30–04.00.

6) **R. Univ. de Córdoba,** Rivera Indarte 170, Córdoba – **L.P:** Dir: F. Garzón M – **D.Prgr:** 09.30–04.30.

7) **R. Independencia,** Rivadavia 118, Tucumán – **L.P:** Dir: P. Soaje – **D.Prgr:** 10.30–04.00 – 8) **R. Porteña,** Rivadavia 827, Buenos Aires – **L.P:** Dir: T. Bidegain – **D.Prgr:** 24 h – 9) **R. Bariloche,** San Carlos de Bariloche – **L.P:** Dir: C. Lamuniere – **D.Prgr:** 12.0–02.00.

10) **R. de Cuyo,** Av. San Martín y General Paz, Mendoza – **L.P:** Dir: M. Fernandez R – **D.Prgr:** 24 h – 11) **R. Rivadavia,** Arenales 2467, Buenos Aires – **L.P:** Dir: J. Monk – **D.Prgr:** 24 h – 12) **R. La Rioja,** Soldado Perazzone 69, La Rioja – **L.P:** Dir: R. A. Flores – **D.Prgr:** 10.55–04.00 – 13) **R. Comodoro Rivadavia,** Mariano Moreno 765, Comodoro Rivadavia – **L.P:** Dir: F. Balbuena – **D.Prgr:** 09.00–05.00.

14) **R. Villa Mercedes,** Balcarce 470, Villa Mercedes – **L.P:** Dir: J. Julio M – **D.Prgr:** 09.05–03.00.

15) **R. Mar del Plata,** Córdoba 1861, Mar del Plata – **L.P:** Dir: E. Marín P – **D.Prgr:** 24 h.

16) **R. Provincia de Corrientes,** Rioja 743, Corrientes – **L.P:** Dir: J. F. Gomez – **D.Prgr:** 24 h.

17) **R. Rio Gallegos,** Av. San Martín 461, Rio Callegos – **L.P:** Dir: V. Gonzalez – **D.Prgr:** 12.00–03.00.

18) **R. Nihuil**, Rioja 1239, Mendoza – **L.P:** Dir: J. Balmaceda. **D.Prgr:** 10.00–05.00.
19) **R. San Rafael**, Irigoyen y Francia, San Rafael – **L.P:** Dir: S. Illa. **D.Prgr:** 09.55–03.55.
20) **R. Catamarca**, Rivadavia 741, Catamarca – **L.P:** Dir: N. Elias M. **D.Prgr:** 10.55–03.05, Sat 10.55–03.55 – 21) **R. Libertador**, Rioja 1484, Mendoza – **L.P:** Dir: M. Houlné – 22) **R. Mitre**, Arenales 1925, Buenos Aires – **L.P:** Dir: F. Ferretti – **D.Prgr:** 24 h – 23) **R. Bahia Blanca**, Sarmiento 54, Bahia Blanca – **L.P:** Dir: D. J. de Massot – **D.Prgr:** 10.00–07.30, Sat 24 h.
24) **R. Rosario**, Córdoba 1825, Rosario – **L.P:** Dir: H. Pavía – **D.Prgr:** 10.30–04.00, Sat 10.30–05.00.
25) **R. Güemez**, Dean Funes 28, Salta – **L.P:** Dir: M. P. Tato – **D.Prgr:** 10.00–05.00.
26) **R. Tucumán**, Mendoza 273, Tucumán – **L.P:** Dir: F. Etchegoin.
27) **R. Jujuy**, Ramirez de Velazco 253, San Salvador de Jujuy – **L.P:** Dir: C. Figueroa – 28) **R. La Voz de la Libertad**, Maipú 166, Córdoba – **L.P:** Dir: M. Bazán – **D.Prgr:** 09.30–04.30 – 29) **R. Excelsior**, Rivadavia 829, Buenos Aires – **L.P:** Dir: J. Grone – **D.Prgr:** 10.00–05.00, Fri 10.00–07.00 – 30) **R. Misiones**, Bolivar 322, Posadas – **L.P:** Dir: C. Madelaire – **D.Prgr:** 08.00–04.00.
31) **R. Ranquel**, Colón 78, Río Cuarto – **L.P:** Dir: J. L. Baetti –
32) **R. Libertad**, Florida 165, Subsuelo – **L.P:** Dir: A. Romay – **D.Prgr:** 09.30–04.00, Sat, Sun 10.00–03.00.
33) **R. Chaco**, 9 de Julio 1855, Resistencia – **L.P:** Dir: J. B. Sobrado – **D.Prgr:** 09.00–04.00, Sat 09.00–05.00.
34) **R. Sarmiento**, Mendoza 466, San Juan – **L.P:** Dir: M. Valente.
35) **R. Argentina**, Santa Fé 2043, Buenos Aires – **L.P:** Dir: R. A. Martinez – **D.Prgr:** 09.00(Sun 10.00)–04.00.
36) **R. General San Martin**, Alsina 247, Bahía Blanca – **L.P:** Dir: R. Rossell – 37) **R. Splendid**, Juan B. Alberdi 189, Neuquén – **L.P:** Dir: R. Sande – **D.Prgr:** 09.59–03.30.
38) **R. Córdoba**, San Martín 60, Córdoba – **L.P:** Dir: J. J. Lasa.
39) **R. Cerealista**, Balcarce 840, Rosario – **L.P:** Dir: A. Ciampoli.
40) **R. del Norte**, Libertad 251, Santiago del Estero – **L.P:** Dir: R. R. Lobos – **D.Prgr:** 10.00–03.00 – 41) **R. Antártida**, Arenales 1925, Buenos Aires – **L.P:** Dir: F. Ferretti – **D.Prgr:** 10.00–03.00.
42) **R. Splendid, Tucumán**, Mendoza 225, Tucumán – **L.P:** Dir: O. F. Vales Garbo – **D.Prgr:** 09.55–05.00.
43) **R. Azul**, Avenida Mitre 819, Azul – **L.P:** Dir: J. Borrero.
44) **R. Genaro Berón de Astrada**, Mariano I. Lloza 231, Goya – **L.P:** Dir: M. Garcia G – **D.Prgr:** 09.55–02.57.
45) **R. Splendid, Rosario**, Santa Fé 1388, Rosario – **L.P:** Dir: P. Spoletti – **D.Prgr:** 10.00–07.00.
46) **R. del Sur**, Lamadrid 116, Bahía Blanca – **L.P:** Dir: H. Long – **D.Prgr:** 10.30–04.00.
47) **R. San Luis**, Rivadavia 563, San Luis – **L.P:** Dir: O. J. Caridad. **D.Prgr:** 10.00–03.00.
48) **R. Santa Fé**, San Martín 2685, Santa Fé – **L.P:** Dir: R. Savio –
49) **R. Splendid**, Onésimo Leguizamón 269, Concepción del Uruguay – **L.P:** Dir: J. Korach – **D.Prgr:** 09.55–03.30, Sat 09.55–04.00.
50) **R. Necochea**, Belgrano 3222, Necochea – **L.P:** Dir: T. Rico – **D.Prgr:** 09.30–04.00 – 51) **R. Atlántica**, San Martín 2583, Mar del Plata – **L.P:** Dir: J. A. Mendiri – **D.Prgr:** 12.00–06.00. **N.** every 15 min – **FM:** 148Mc, 50kW – **V.** by letter – **F.Pl:** 10kW – 52) **R. General Urquiza**, Rivadavia 64, Paraná – **L.P:** Dir: A. Vergara B.
53) **Radioemisora del Oeste**, Av. Pedro Garcia Salinas s/no, Trenque Lauquen – **L.P:** Dir: R. Saez Odriozola – **D.Prgr:** 10.30–02.30.
54) **R. del Pueblo**, J. A. Pacheco de Melo 2178, Buenos Aires – **L.P:** Dir: C. Aris B – **D.Prgr:** 10.00–03.00, Sat 10.00–05.00.
55) **R. General Madariaga**, Av. Libertador General San Martín, Corrientes – **L.P:** Dir: J. J. Varela – **D.Prgr:** 10.00–03.00, Sat 10.00–04.00 – 56) **R. Presidencia Roque Saenz Peña**, J. J. de Urquiza 585, Presidencia Roque Saenz Peña – **L.P:** Dir: R. Galotto – **D.Prgr:** 09.00–03.30, Sat 09.00–04.00 – 57) **R. Golfo Nuevo**, B. Mitre y Estivariz, Puerto Madryn – **L.P:** Dir: E. Cassani – **D.Prgr:** 11.00–03.00.
58) **R. Viedma**, Rivadavia 336, Viedma – **L.P:** Dir: O. Liccardi – **D.Prgr:** 12.30–01.30.
59) **R. Rio Negro**, Reconquista 135, Villa Regina – **L.P:** Dir: D. Lopez – **D.Prgr:** 12.45–17.00, 20.50–01.00.
60) **R. Tartagal**, Tartagal – **L.P:** Dir: N. S. Martinez Gil.
61) **R. Oberá**, Jujuy 81, Oberá – **L.P:** Dir: H. W. R. Amable.
62) **R. Cipolletti**, Sarmiento 160, Cipolletti – **L.P:** Dir: R. Rost.
63) **R. San Ramón de la Nueva Orán**, San Ramón de la Nueva Orán.
64) **R. El Valle**, Av. J. A. Roca 357, General Roca – **L.P:** Dir: O. A. Cozzi – 65) **R. Chubut**, Italia 47, Chubut – **L.P:** Dir: T. Borisch. – **D.Prgr:** 11.00–03.00 – 66) **R. Golfo San Jorge**, España 860, Chubut.
67) **R. El Dorado**, El Dorado – **L.P:** Dir: G. Esquivel.

BOLIVIA

L.T: GMT÷4 h – **Pr.L:** Spanish.

DIRECCION GENERAL DE RADIOCOMUNICACIONES
Departemento de Radiodifusion, La Paz. Te: 2436 – **L.P:** Dir. Gen: A. Salces Arce.

STATIONS: All st's comm. exc. 5) (Rel), 15) (Go), 18) (Cultural), 23), 27), 35).

Short Waves: * inactive.

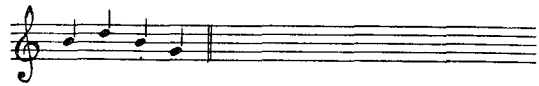
	Call	kc	m	kW	Name and h of tr.
1)	CP74	4785	62.70	1	R. Indoamerica, Potosi: 11.30–02.30
2)	CP70	4825	61.82	0.3	R. Grigota, Santa Cruz: 10.00–03.00
3)	CP66	4845	61.92	1	R. Centenario, Santa Cruz: 11.00–03.00
4)	CP59	*4855	61.79	1	R. Cobija, Cobija:
5)	CP75	4985	60.75	5	La Cruz del Sur, La Paz
6)		5360	55.97		R. Alihuata, Santa Cruz
7)		5610	53.48		R. Cochabamba, Cochabamba
8)		5750	52.17		LV del Minero, Llallagua
9)		5755	52.15		R. Sumajorko, Potosi
10)		5785	51.86		R. Colquiri, Colquuri
11)		5820	51.55		R. Tupas Katari, Oruro
12)		5860	51.19		R. Nacional, Huanuni
13)		5865	51.15		R. Corocoro, Corocoro
14)		5875	51.06		R. Emisora San Jose, Oruro
15)	CP5	*5955	50.38	1	R. Illimani, La Paz: 11.00–04.00
16)	CP81	a) 5960	50.34	0.5	R. Pio XII, Llallagua: 09.00–04.00
17)	CP44	5975	50.21	1.5	R. Nacional LAB, Cochabamba: 10.00–04.00
18)	CP41	5995	50.04	1	R. Loyola, Sucre: 11.00–13.30, 16.00–20.00, 21.00–02.30
19)		6000	50.00		R. FSB, Potosi
20)		6050	49.55		R. Villazon, Villazon
21)	CP18	6070	49.42	1	R. El Condor, Oruro: 21.00–02.00
22)	CP15	6125	49.98	1.5	R. El Condor, La Paz: 12.00–03.00
23)	CP30	6135	48.90	0.15	R. Libertad, Santa Cruz: 15.00–18.00
24)		6140	48.86		R. Chorolque, Tupiza
25)	CP12	b) 6155	48.74	1	R. Fides, La Paz: 11.00–17.00, 21.00–02.30,
26)	CP9	c) 6185	48.50	0.25	R. Amauta, La Paz: 11.00–18.00 20.00–05.00
27)	CP23	*6198	48.40	1	R. Prefectura, Tarija:
28)		6210	48.31		R. Chichas, Slete Suyos
29)		6350	47.24		Union R, Oruro
30)		6500	46.15		R. Busch, Uyuni
31)		6525	45.98		R. Camiri, LV del Petrolero, Camiri
32)		6600	45.45		R. Libertad, Sucre
33)	CP39	9440	31.78	1	La Cruz del Sur, La Paz
34)	CP38	9505	31.56	5	R. Altiplano, La Paz: 10.00–06.00
15)	CP6	d) 9555	31.50	10	R. Illimani, La Paz: 11.00–14.00, 16.00–18.00, 22.00–04.00
35)	CP22	*9605	31.23	5	R. Prefectura, Potosi
36)	CP21	9715	30.88	1	R. La Plata, Sucre: 12.00–18.00, 19.00–03.00
5)	CP39	11765	25.50	10	La Cruz del Sur, La Paz: as 4985kc
15)	CP7	*11775	25.48	10	R. Illimani, La Paz.

a) actually on 5958kc; b) on 6164kc; c) on 6340kc; d) on 9557kc.

Medium Waves: °=Short Wave. **Call:** CP—–.

	Call	kc	kW		Call	kc	kW		Call	kc	kW
37)	63	620	1	48)	19	1160	0.25	25)	29	°1300	0.25
38)	68	620	0.25	49)	25	1160	0.25	59)	45	1330	0.25
39)	34	680	10	50)		1200		60)	36	1330	0.25
5)	27	°730	1	51)	55	1200	0.25	2)	24	°1340	0.25
40)	56	780	0.25	52)	67	1200	0.25	61)		1350	
41)	52	780	0.25	36)	54	°1250	0.25	62)		1390	
42)	61	780	0.25	4)	47	°1250	0.25	63)		1390	
43)	64	780	0.25	53)	16	1250	0.25	64)	3	1390	1
44)		900		1)	53	°1250	0.25	65)		1420	
34)	35	°820	0.25	54)	73	1250	0.25	66)		1450	
22)	20	°900	0.25	17)	69	°1250	0.25	67)		1450	
26)	11	°960	0.25	55)	14	1250	0.25	68)	8	1470	1
45)	32	960	0.25	56)	65	1250	0.25	69)		1500	
46)		975		57)	57	1250	0.15	70)		1510	
15)	4	°1020	20	58)	73	1250	0.25	71)	8	1455	1
47)		1050		18)	51	°1300	0.25	72)		1550	
								16)	50	°1550	1

Short Wave:
1) Potosi – 2) Soc. Comercial Colectiva Grigota, Santa Cruz – 3) Santa Cruz.
4) Centro Accion Pandina, Cobija.
5) Cajon 8, La Paz. **Te:** 5578. **FI:** By Baptist Churches of Canada. **L.P:** Dir. Gen: R. Bonney. Dir. Tec: J. Mikaelsen. **D.PRGR: N:** 11.30, 12.00, 14.30, 17.00, 00.00, 02.00. **English: D** 02.30–02.45. **"E. by R":** Mo, Wed, Fri 00.45. **"German by R":** Thurs 23.45. **"French by R":** Mo, Wed, Fri: 23.15. **ANN: E:** "This is CP27 and CP39, the Southern Cross R. Station...". **Sp:** "R. La Cruz del Sur, Luz que senala el camino de la vida". At 03.00 (s/off): "This is the Southern Cross Radio". **INT-SIG:** Opens with "God of our Fathers", closes with "The Heavens are telling".



V. by QSL-card. Rp. **PUB:** Prgr.schedule free on request.
6) Santa Cruz – 7) Cochabamba – 8) Llallagua – 9) Potosi.
10) Colquiri – 11) Oruro – 12) Huanuni – 13) Corocoro – 14) Oruro.
15) Emisora del Estado, Av. E. Camacho Edificio Krsul, La Paz. V. by QSL-card. **F.PL:** 10kW tr's on 15300, 17865, 25700kc.
16) Mision Católica Padres Oblatos, Llallagua.
17) Lloyd Aéreo Boliviano, Cochabamba.
18) Cas. 155, Sucre. **Cable:** Radioloyola. **Te:** 1677. **L.P:** Dir. Gen: R. Aguilo. Dir. Tec: J. Lora. **D.PRGR: N:** 12.15, 15.30, 16.40, 19.00, 19.50, 21.30, 24.00, 02.00. **Ketchua: D** 11.15. **English:** Tues 23.00. **L.L:** (English): D 22.00. **ANN:** "Radioemisoras Loyola, Voluntad Católica de Bolivia por un Mondo Mejor". **V.** by letter.
19) Potosi – 20) Villazon – 21) La Plata 1139, Oruro.
22) Av. Camacho 1471, La Paz. **Te:** 3070. **L.P:** Dir. Gen: S. A. Sare. Dir. Tec: A. Sempértegui. **D.PRGR: N:** W: 11.30, 16.30, 23.30, 02.30. **ANN:** "Estas son CP15 y CP20, estaciones de ondas corta y larga de R. El Condor, La Voz Ferroviario, desde La Paz, Bolivia". **V.** by letter. **F.PL:** 10kW tr.
23) Santa Cruz - 24) Tupiza – 25) Soc. Compania de Jesus, La Paz.
26) Tarija.
27) Slete Suyos – 28) Comercio 386, La Paz – 29) Ouro.
30) Uyuni – 31) Camiri – 32) Sucre – 33) La Paz – 34) La Paz.
35) Potosi – 36) Sucre.

Medium Waves:

37) **R. San Gabriel,** Casilla 1071, La Paz. **L.P:** Dir. Gen: B. Ryan. Dir. Tec: D. Pruss. **D.PRGR:** 11.00–12.30, 15.00–17.00, 20.30–01.00. V. by letter or QSL-card.
38) **R. San Rafael,** Cas. 546, Cochabamba. **L.P:** Dir. Gen: Rev. L. J. Sommer, MM. Dir. Tec: H. Cosio. **D.PRGR:** 10.00–03.00. **N:** 11.30, 16.45, 23.00, 02.00. **N. in Quechua:** 23.30. **ANN:** "Transmite CP68, R. San Rafael, La Voz Católica de Cochabamba". **F.PL:** 1kW.
39) **R. Mendez,** Pasaje Belle Vista 212, La Paz. **D.PRGR:** 12.15–13.00, 14.30–18.00, 22.00–02.30.
40) **La Voz Minera,** Comando Movimiento Nacionalista Revolucionario, Telemayo (Dep. Potosi).
41) **R. Potosi,** Sucre 79, Potosi. **D.PRGR:** 13.00–15.00, 16.00–20.00, 00.30–03.00.
42) **La Voz del Ferroviario,** Uyuni – 43) **R. Chorolque,** Tupiza.
44) **R. Calatayud,** Cochabamba – 45) **R. Santa Cruz,** Santa Cruz.
46) **R. Continental,** La Paz – 47) **R. Libertad,** Sucre.
48) **R. Aspiazu,** La Paz – 49) **R. Centenario,** Santa Cruz.
50) **R. Liberacion,** Potosi – 51) **R. Universidad,** Universidad Tecnica, Oruro – 52) **R. Splendid,** La Paz – 53) **R. Los Andes,** Tarija – 54) **R. Amboro,** Santa Cruz – 55) **Emisoras Unidas,** La Paz – 56) **R. Oruro,** Oruro. **D.PRGR:** 14.00–19.00, 21.00–03.00 – 57) **R. Nueve de Abril,** Pulacayo – 58) **R. Amboro,** Santa Cruz – 59) **R. Cultura,** Cochabamba – 60) **R. Mercurio,** Oruro – 61) **R. Cochabamba,** Cochabamba – 62) **R. Tunari,** Cochabamba – 63) **R. Corocoro,** Corocoro.
64) **R. Nacional,** La Paz.
65) **R. Excelsior,** La Paz – 66) **R. Municipal,** Huanuni.
67) **R. Ventiuno de Decembre,** Llallagua.
68) **R. Nueva America,** Junin 660, La Paz. **D.PRGR:** 11.00–14.00, 16.00–18.00, 22.00–04.00 – 69) **R. Atlantida,** Santa Cruz – 70) **R. Amerindia,** La Paz – 71) **R. Miraflores,** La Paz – 72) **R. Luis de Fuentes,** Tarija.

BRAZIL

L.T: Eastern (Coastal): GMT÷3 h. Western: GMT÷4 h. Acre: GMT÷5 h – **Pr.L:** Portuguese.

CONSELHO NACIONAL DE TELECOMUNICACÕES

(National Council of Telecommunications), Av. Pres. Wilson, 164-10° andar, Rio de Janeiro.
L.P: Pres: A. Sacaffa de Azevedo Galcao. Vice Pres: H. Dourado.
STATIONS: Short Waves: *=inactive.

	Call	kc	m	kW	Name	h of tr.
1)	ZYV38	2340	128.2	0.5	R. Educadora da Uberlandia	14.00–01.00
2)	ZYB	2350	127.6	1	R. Dif. Itacoatiara	10.00–01.00
3)		2360	127.1	0.25	R. Dif. Parintins	10.00–01.00
4)		2370	126.1	0.25	R. Cl. Fluminense, Sao João de Mariti	12.00–01.00
5)		2380	126.0	0.25	R. Educadora de Limeira	09.00–02.00
6)	ZYV71	2390	125.5	0.5	R. Por Um Mundo Melhor, C. Valadares	10.00–04.30
7)		2390	125.5	0.5	R. Cultura de Monte Alto, Jaboticabal	10.00–24.00
8)		2400	125.0	0.1	R. Tapuyo, Mossoró	09.00–20.00 22.00–03.00
9)		2400	125.0	0.5	R. Dif. de Amparo	08.30–15.00 19.00–24.00
10)		2410	124.1	1	R. Sirena, Leopoldina	11.00–14.00 21.00–01.00
11)	ZYW32	2420	124.0	0.5	R. Carajá, Anápolis	09.00–01.00
12)		2420	124.0	0.5	R. São Carlos	09.00–04.00
13)		2420	124.0	0.25	R. Dif. Maranhão, Carolina	
14)		2430	123.5	0.25	Dif. Rio Bonito	09.00–02.00
15)	ZYR231	2450	133.5	0.25	R.CulturadeAraçatuba	09.00–01.00
16)	ZYR99	2460	122.0	0.5	R. Cacique de Sorocaba	09.30–03.00
17)		2480	121.0	1	R. Braganca, Braganca Paulista	
18)	ZYN62	3255	92.17	0.5	R. Cl. de Marilia	10.00–02.30
19)	ZYR92	3265	91.87	4	R. Ribeirão Preto	08.30–02.30
20)	ZYK21	3265	91.87	1	R. Tamandaré, Recife	09.00–05.00
21)	ZYR31	3275	91.60	1	R. Cl. Bauru	09.00–01.30
22)	ZYR89	3285	91.32	1	R. Aparecida	10.00–24.00
23)		3285	91.32	1	Emis. da Educacão Rural, Natal	
24)	ZYH31	3305	90.77	1	R. Educadora do Cariri, Crato	11.00–15.00, 21.00–24.00
25)	ZYV63	3315	90.50	1	R. Itatiaia, Belo Horizonte	11.00–02.00
26)	ZYR220	3325	90.23	1	R. Dif. Guarulhos	09.00–01.00
27)	ZYJ21	3325	90.23	0.5	R. Borborema, Campina Grande	09.00–15.00, 20.00–24.00
28)	ZYV30	3355	89.92	0.5	R. Dif. Brasileira, Uberlandia	15.00–01.00
29)	ZYR59	3335	89.95	0.5	Vóz do Sertão, Pres. Prudente	12.00–17.00
30)	ZYE	3335	89.95	1	R. Marajoára, Belem	11.00–01.00
31)	ZYS45	3365	89.15	0.5	Dif. do Paraná, Londrina	09.00–01.00
32)	ZYK28	3375	88.88	1	R. Olinda Pernambuco, Olinda	09.00–02.00
33)		3385	88.63	0.5	R. Cl. Teresina	11.00–02.00
34)	ZYA41	3385	88.63	1	R. Eldorado, Rio	10.00–02.00
35)		3395	88.37	1	R. Cl. de Conquista	
36)	ZYF23	4750	63.16	2	R. Dif. do Maranhão, São Luiz	09.00 01.00
37)	ZYY3	4755	63.09	1/0.5	R. Brasil, Campinas	09.00–02.00
38)	ZYN37	4765	62.96	1	R. Feira de Santana	11.00–24.00
39)	ZYH29	4775	62.84	5	R. Dragão do Mar, Fortaleza	10.00–03.00
40)	ZYR81	4775	62.84	5	R. Progresso de São Paulo	09.00–01.00
41)	ZYY20	4785	62.70	1	R. Dif. Guaporé, Porto Velho	12.00–02.00
42)	ZYM8	4785	62.70	0.5	R. Ribamar, São Luiz	11.00–02.00
43)	ZYU25	*4795	62.57	1	R. Cultura de Cambuquira	
44)	PRI4	4795	62.57	2	R. Tabajara, João Pessoa	09.30–02.00
45)	ZYS8	4805	62.43	5	R. Dif. de Amazonas, Manaus	09.00–02.00
46)	ZYP33	4815	62.31	1	R. Dif. Petropolis	10.00–04.00
47)	ZYH27	4815	62.31	1	R.IracemadeFortaleza	09.00–03.00
48)	ZYE7	4825	62.18	0.5	R. Educadora da Parnaiba	10.00–02.00
49)	ZYV56	4825	62.18	0.5	R. Cl. de Varginha	10.00–02.00
50)	ZYV37	4835	62.05	0.5	R. Soc. Triangúlo Mineiro, Uberaba	09.30–02.30
51)	ZYA	4835	62.05	1	R. Dif. Roraima, Boa Vista	11.00–16.00, 22.00–03.00
52)	ZYU8	4845	61.92	0.5	R. Dif. Teresina	12.00–02.00
53)	ZYR61	4855	61.79	1	R. Dif. Taubaté	10.00–07.00
54)	PRC5	4865	61.66	2.5	R. Cl. do Para, Belem	09.00–04.00
55)	ZYZ30	4875	61.54	5	R. Jornal do Brasil, Rio de Janeiro	08.00–05.00
56)	ZYG26	4885	61.41		R. Pioneira de Teresina,	
57)	ZYC	4885	61.41	1	R.Acreana,RioBranco	12.00–02.00
58)	ZYV50	4885	61.45	5	R. Cultura de Poços de Caldas	10.00–01.00
59)	PRF6	4895	61.29	2.5	R. Baré, Manaus	10.00–03.00
60)	ZYN22	4895	61.28	1	R. Cultura da Bahia, Salvador	09.00–02.00
61)	ZYZ20	4905	61.16	5	R. Relogio Federal, Rio de Janeiro	00.00–24.00
62)	ZYR60	4915	61.04	1	R. Cultura de Araraquara	11.30–02.00
63)	ZYE2	4915	61.04	2	R.Dif.Macapá,Amapá	12.00–01.00
64)		4915	61.04	1	Emis. Rio São Francisco, Penedo	12.00–01.00
65)	ZYV32	4925	60.90	1	R. Industrial de Juiz de Fóra	
66)	ZYA6	4925	60.90	1	R. Iracema, Sobral	09.00–02.00
67)		*4935	60.80	0.5	Lins R. Clube, Lins	
68)	ZYI21	4935	60.80	1	R. Poti, Natal	10.00–02.00
69)	ZYO25	4945	60.67	1	R. Capixaba, Victoria	10.30–02.00
70)	ZYF22	4945	60.67	0.25	R. Caxias do Sul	11.00–01.00
71)	ZYE23	4945	60.67	1	R. Educadora de Bragança	09.00–13.00, 15.00–01.00

Brazil

72) PRF7	4955	60.54	2	R. Cultura de Campos 09.00–02.30
73) ZYV9	4975	60.30	2.5	R. Timbira, São Luiz 12.00–03.00
74) ZYP27	4975	60.30	1	R. Copacabana, São Conçalo 09.00–03.00
75) ZYZ5	4985	60.18	1.5	R. A Voz do Oeste, Guiaba 10.00–02.00
76) ZYY2	4995	60.06	1	R. Brasil Central, Goiania 11.00–01.00
77) PRC8	5015	59.80	1	R. Guanabara, Rio de Janeiro 00.00–24.00
78) ZYX24	5025	59.70	1	R. Dif. Aquidauana 12.00–02.00
79)	5025	59.70	1	R.Dif. A Voz da Amazonia,
80) ZYW22	5035	59.58	1	R. Anhanguera, Goiania 09.00–03.00
81) PRI4	5035	59.58	0.5	R. Espirito Santo, Vitoria 12.00–01.00
82)	5045	59.46		R. Mundial, Rio de Janeiro
83) ZYP23	5045	59.46	1	R. Quitandinha, Petropolis 11.00–01.00
84) ZYO21	*5055	59.35	2	R. Cultura de Cuiabá
85) ZYO23	5055	59.35	2	R. Vitória 11.30–03.00
86) ZYR226	5955	50.38	10	R. Gazeta de São Paulo 09.00–04.00
87) ZYU60	5965	50.28	7.5	R. Guaiba, Porto Alegre 10.00–03.00
88) ZYT44	5975	50.21	10	R. Guarujá, Florianopolis 11.00–04.00
89) PRL5	5990	50.04	7.5	R. Ministerio da Educação, Rio de Janeiro 08.30–05.00
90) PRK5	6000	50.00	5	R. Inconfidencia, Belo Horizonte 11.00–04.00
91) PRA8	6015	49.88	5	R.Cl. de Pernambuco, Recife 11.00–02.00
92) ZYR63	6025	49.79	10	Emis. Piratininga, São Paulo 09.00–03.00
93) ZYZ26	6035	49.71	10	R. Globo, Rio de Janeiro 08.00–04.00
94) ZYS33	6045	49.63	7.5	R.Cl. Paranaense, Curitiba 09.00–03.00
95) PRB21	6055	49.55	10	R. Panamericana, São Paulo 12.00–01.00
96) ZYZ31	6065	49.46	7.5	R. Rural Brasileira, Rio de Janeiro 08.00–12.00, 20.00–23.00
97) PRL8	6065	49.46	10	R. Nacional, Brasilia 08.00–03.00
98) ZYK2	6085	49.30	15	R. Jornal do Comércio, Recife 09.00–03.00
99) ZYB7	6095	49.22	25	R.Dif. São Paulo 09.00–03.00
100)ZYN6	6105	49.14	5	R.Cl. Ceará, Fortaleza 11.00–03.00
101)ZYC7	6115	49.06	50	R. Tupi, Rio de Janeiro 08.00–04.00
102)PRG9	6125	48.98	7.5	R. Nacional, São Paulo 09.00–03.00
103)PRC21	6135	48.90	7.5	R. Gaucha, Porto Alegre 10.00–02.00
104)PRL9	6145	48.82	50	R. Nacional 08.00–05.00
105)ZYR58	6165	48.66	7.5	R. Cultura, São Paulo 09.00–04.00
106)	6175	48.58	10	R. Guarani, Belo Horizonte 10.00–03.00
107)ZYR77	6185	49.58	5	R. Bandeirantes, São Paulo 09.30–04.00
108)PRD21	6195	48.43	10	Emis. Continental 07.30–04.30
97) PSL	7935	37.81	20	Agencia Nacional 22.30–23.30
109)PRN9	9295	32.28	2.5	R.Dif. Departamento Segurança,
95) PRB22	9505	31.56	7.5/50	R. Record, São Paulo 09.00–03.30
110)PRD5	9515	31.53	1	R. Roquete Pinto 09.00–03.00
111)ZYS43	9545	31.43	7.5	R. Emis. Paranaense, Curitiba 10.00–03.00
98) ZYK3	9565	31.37	15	R. Jornal do Comercio, Recife 09.00–04.00
112)ZYZ27	9575	31.33	10	R. Mayrink Veiga, Rio de Janeiro 00.00–24.00
102)ZYR56	9585	31.30	50	R.Excelsior, São Paulo 10.00–04.00
60) ZYN29	9595	31.27	10	R. Cultura da Bahia 11.00–02.00
101)ZYC8	9610	31.22	10	R. Tamoio, Rio de Janeiro 09.00–04.00
113)ZYR96	9620	31.19	10	R. 9 de Julho, São Paulo 10.00–04.30
22) ZYR83	9635	31.14	7.5	R. Aparecida 12.00–01.00
58) ZYV40	9645	31.10	7.5	R. Cultura de Poços de Caldas 12.00–24.00
114)	9665	31.04		R. Rio, Rio de Janeiro
97) PRL8	9665	31.04	10	R. Nacional, Brasilia 09.00–04.00
115)ZYT29	9675	31.01	10	R. Diario da Manhã, Florianopolis 12.00–01.00
86) ZYR227	9685	30.98	10	R. Gazeta 09.00–04.00
116)ZYB22	9695	30.94	7.5	R. Rio Mar, Manaus 12.00–04.00
117)ZYZ24	9705	30.91	10	R. Mauá, Rio de Janeiro 07.00–05.00
101)PRL7	9720	30.86	50	R. Nacional, Rio 08.00–04.00
118)ZYU59	9730	30.83	7.5	R. Soc. Farroupilha, Porto Alegre 12.00–01.00
105)ZYR57	9745	30.79	7.5	R. Cultura, São Paulo 09.00–03.00
80) ZYW23	9755	30.70	1	R. Anhanguera 12.00–01.00
89) PRL4	9770	30.71	1	R. Ministerio da Educação, Rio 08.30–05.00
76) ZYY29	9775	30.69	7.5	R. Brasil Central 12.00–01.00
97) PSH	10220	29.35	20	Agencia Nacional, Rio de Janeiro 22.30–23.30
97) PRL8	11720	25.60	10	R. Nacional, Brasilia 08.00–03.00
119)ZYW28	11735	25.56	7.5	R. Clube de Goiania 11.00–02.00
92) ZYR65	11745	25.54	10	R.Emis. Piratininga, São Paulo 09.00–04.00
105)ZYB8	11765	25.50	25	R. Tupi, São Paulo 09.30–03.30
112)ZYZ28	11775	25.48	10	R. Mayrink Veiga, Rio de Janeiro 00.00–24.00
87) ZYU61	11785	25.46	7.5	R. Guaiba 12.00–03.00
104)	11795	25.43	10	R. Nacional, Rio 08.00–04.00
93) ZYZ36	11805	25.41	10	R. Globo 09.00–04.00
76) ZYW24	11815	25.39	7.5	R. Brasil Central 11.00–01.00
98) ZYK32	11825	25.37	15	R. Jornal do Comercio, Recife 09.00–03.00
120)	11855	25.31	10	Rede Paranaense de Emissoras, Curitiba
91) PRA8	11865	25.28	7.5	R.Cl. Pernambuco, 09.00–03.00
121)ZYN32	11875	25.26	10	R. Soc. da Bahia, Salvador 10.00–02.00
117)ZYZ25	11885	25.22	10	R. Mauá 07.00–05.00
103)PRC20	11915	25.18	7.5	R. Soc. Gaucha 10.30–01.30
107)ZYR78	11925	25.16	10	R. Bandeirantes 11.00–03.00
94) ZYS35	11935	25.14	7.5	R.Cl. Paranaense 10.30–02.00
89) PRL3	11950	25.10	7.5	R. Ministerio da Educação, Rio 08.30–05.00
95) PRB24	11965	25.07	50	R. Record, São Paulo 09.00–03.30
97) PUB25	12058	24.88	2	Agencia Nacional, São Paulo
97) PSF	14690	20.45	20	Agencia Nacional 22.30–23.30
96) ZYZ32	15105	19.86	7.5	R. Rural Brasileira 11.30–03.00
122)	15115	19.85	7.5	R. Soc. Guairacá, Curitiba 11.30–03.00
121) ZYN31	15125	19.83	10	R. Soc da Bahia, Salvador 08.00–04.00
95) PRB23	15135	19.82	10	R. Panamericana 09.00–03.30
98) ZYK33	15145	19.81	15	R. Jornal do Comercio, Recife 09.00–04.00
99)ZYB9	15155	19.80	25	R. Difusora de São Paulo 09.00–03.00
100)ZYN7	15165	19.78	5	R.Cl. do Ceará 10.00–03.00
123)	15175	19.76	7.5	Emiss. Riograndense, Pelotas 11.00–15.00, 20.00–03.00
90) PRK9	15190	19.75	5	R. Inconfidencia, Belo Horizonte 09.00–04.00
97)	15205	19.74	10	Agencia Nacional 22.30–23.30
73) ZYY9	15215	19.71	2.5	R. Timbira, São Luiz 12.00–01.00
60) ZYN30	15225	19.70	10	R. Cultura da Bahia, Salvador 10.00–02.00
30) ZYE21	15245	19.68	10	R. Marajoara, Belem 11.00–01.00
102)PRG9	15265	19.66	50	R.Excelsior, São Paulo 09.00–04.00
104)PRL8	15295	19.62	10	R. Nacional 08.00–04.00
86) ZYR228	15325	19.58	10	R.Gazeta de São Paulo 09.00–04.00
118)ZYU60	15335	19.56	7.5	R. Farroupilha, Porto Alegre 10.00–02.00
101)ZYC9	15370	19.52	10	R.Tupi, Rio de Janeiro 09.00–03.00
124)ZYR206	15415	19.46	1	R.Cl. Ribeirão Preto 12.00–01.00
97)	15445	19.43	10	R. Nacional de Brasilia 08.00–03.00
114)	15445	19.43	50	R. Rio, Rio de Janeiro
113)ZYR97	17705	16.94	10	R. Nove de Julho 10.00–03.00
125)ZYR232	17725	16.93	1	R. Universitaria Santos Dumont, São Jose dos Campos 12.00–15.00
97)	17775	16.90	10	Agencia Nacional, Brasilia
97)	17775	16.90	10	Agencia Nacional, Rio de Janeiro
45)	17795	16.86	5	R.Dif. do Amazonas 10.00–01.00
105)	17815	16.82	10	R. Cultura de São Paulo 09.00–15.00, 18.00–01.00
104)PRL9	17850	16.81	10	R. Nacional 08.00–04.00
89) PRL2	17875	16.79	7.5	R. Ministerio da Educação, Rio 08.30–05.00
97)	21490	14.50	10	Agencia Nacional, Brasilia
97)	21500	13.96	10	Agencia Nacional, Brasilia
97)	21580	13.90	10	Agencia Nacional, Brasilia

	Call	kc	kW
113)	ZYR98	540	10
126)		540	5
32)	ZYZ22	°550	10
127)	ZYN4	560	1/0.25

122)	ZYM5	°560	10	176)	PRD7	1080	1	233)	ZYV59	1330	1/0.35	260)	PRE2	1430	10
128)		580	10	177)	ZYN24	1080	1	234)	ZYV33	1330	1/0.5	261)		1430	1
129)	PRG5	580	1/0.5	178)	ZYB4	1080	1/0.5	235)	ZYI5	1330	1/0.5	262)	ZYH5	1430	1/0.25
130)	ZYM3	580	1/0.5	179)	ZYX7	1080	1/0.25	236)	PRC4	1330	1/0.5	94)	PRB2	°1440	20/10
131)	ZYM25	580	1/0.5	180)	ZYE4	1080	1/0.5	237)		1330	1/0.5	263)		1440	10
132)	ZYD4	580	1/0.5	181)	ZYU67	1080	2/0.5	238)	ZYE25	1330	10	54)	PRC5	°1450	10
61)	ZYZ22	°590	0.25	182)	ZYV47	1080	1/0.25	106)	PRH6	°1340	1/0.25	264)	PRB4	1450	5/2
118)	PRH2	°600	50	43)	ZYV52	°1080	0.25	239)	ZYX2	1340	1/0.25	265)	ZYJ20	1450	1
133)		620	10	183)	ZYK22	1080	1/0.25	240)		1340	10	266)	ZYP36	1450	5/2.5
95)	PRH7	°620	5/10	184)	ZYR64	1080	1/0.25	100)		°1340	1	267)	ZYT21	1450	1/0.25
134)	ZYX25	630	10	18)	PRI2	°1090	1	241)	ZYX5	1340	1/0.25	57)	ZYD9	°1460	0.25
135)	ZYV44	630	1	65)	ZYT9	°1090	1	58)	PRH5	°1350	5	268)	ZYH22	1460	1
136)	ZYA3	630	1	185)	ZYT38	1090	1/0.25	242)	ZYU85	1350	1	63)	ZYE2	°1460	0.25
137)	PRJ6	630	1	186)	ZYN25	1090	1	243)	ZYN35	1350	5	269)	PRH2	1460	20
25)	ZYV29	°630	5	187)	ZYI25	1090	1	244)	ZYO7	1350	1	270)	ZYE3	1470	1/0.5
138)	ZYU37	630	1	89)	–	1090	1	245)		1350	1/0.25	271)	ZYD2	1470	1/0.5
139)	PRF9	640	2.5	188)	ZYU50	1100	1	77)	PRC8	°1360	10	28)	PRC6	°1470	1/0.5
140)	ZYM22	670	10/5	102)	PRG9	°1100	50	246)	ZYH25	1360	10	272)	ZYZ6	1470	1
102)	ZYR56	°670	10	44)	PRI4	°1110	10	247)	ZYU82	1360	1	273)		1470	1
141)	ZYK26	680	1	189)	ZYT25	1110	1/0.25	62)	PRD4	°1370	1	48)	PRJ4	°1470	0.5
142)	ZYS65	680	1	190)	ZYS67	1110	1/0.25	69)	ZYO22	°1370	1	274)	ZYN3	1470	1/0.5
74)	ZYP20	°680	5	72)	PRF7	°1110	5	248)	ZYK31	1370	5	11)	ZYJ3	°1480	0.5
103)	PRC2	°680	10/5	191)	ZYV66	1110	1	80)	ZYW21	°1370	1	116)	ZYB20	°1480	10
39)	ZYH29	°690	10	60)	ZYN20	°1120	10	33)	ZYQ3	°1370	1	275)	ZYH20	1480	1
143)	PRC7	690	25/10	30)	ZYE20	°1130	25	70)	ZYF3	°1370	5	46)	PRD3	°1480	5
31)	ZYS44	°690	0.25	117)	PRH8	°1130	25	249)	ZYR212	1370	1	71)	ZYE22	°1480	0.25
144)	ZYW3	690	1	192)	ZYI24	1130	1	250)	ZYS46	1390	1	73)	PRJ9	°1490	5
34)	ZYR213	°700	50	193)	ZYU77	1130	1/0.25	251)	ZYJ2	1390	1/0.5	276)	ZYP29	1490	1/0.5
53)	ZYA8	°720	1	194)	ZYT34	1130	1/0.25	252)	ZYK25	1390	1	277)	ZYU46	1510	1/0.25
91)	PRA8	°720	0.25	195)		*1140	10	253)	ZYV49	1390	2	278)	ZYS9	1540	2.5
87)	ZYU58	°720	50	196)	ZYH7	1160	1/0.5	24)	ZYH30	°1400	5	279)	ZYI	1540	2.5
145)		720	1/0.25	197)	ZYS73	1160	1	254)		1400	5	6)	ZYV64	°1550	0.25
146)	ZYW53	730	1	81)	PRI9	°1160	10	110)	PRD5	°1400	10/5	4)	ZYP39	°1550	0.25
147)		730	1	75)	PRH3	°1160	1	255)	ZYR224	1400	1/0.25	5)	PRJ5	°1550	0.25
148)	ZYO9	730	1/0.25	198)	PRF5	1160	1	42)	ZYF21	°1410	1	280)	ZYK30	1560	1
149)	ZYR80	730	2.5	199)	ZYA5	1160	1	256)	PRE7	1410	25/10	281)	ZYN33	1560	1
150)	ZYH8	730	1/0.25	200)	ZYI20	1170	1	257)	ZYH26	1410	10	282)	ZYS56	1570	10
85)	ZYO21	°730	1	201)	PRC9	1170	5	258)	ZYI4	1420	1/0.25	3)		°1570	0.25
121)	PRA4	°740	50	202)	ZYU72	1170	1/0.25	259)	ZYU94	1420	1	22)	ZYR44	°1600	0.25
109)	PRN9	°760	2	203)	ZYU38	1170	1/0.25	88)	ZYJ7	°1420	5/2.5				
98)	PRL6	°780	20/10	204)		1170	1/0.25								
19)	ZYR79	°780	0.25	93)	PRE3	°1180	50								
1)	ZYV38	°780	0.25	92)	PRB6	°1200	10								
89)	PRA2	°800	25	100)	PRE9	°1200	10								
151)	ZYT94	820	1	205)	PRB6	1200	5								
152)	ZYA4	820	1/0.25	206)	ZYU91	1200	1/0.25								
153)	–	820	1	97)	PRL8	°1210	10/5								
29)	PRI5	°820	0.25	21)	PRG8	°1210	1/0.5								
107)	PRH9	°840	10/5	207)	ZYL9	1210	1/0.5								
154)	ZYD8	840	10/5	49)	ZYB2	°1210	1								
155)	ZYT33	840	1/0.25	111)	ZYZ9	°1210	1								
156)	PRA3	860	50	208)	ZYX	1210	1								
90)	PRI3	°880	50	209)	ZYK23	1210	1/0.5								
157)	ZYU33	880	10	210)		1210	1/0.25								
86)	PRA6	°890	7.5	112)	PRA9	°1220	50								
20)	ZYK20	°890	20	211)	ZYB21	1240	5								
158)	ZYI23	900	10	2)	ZYB21	°1240	5								
101)	PRB7	°900	10/5	212)	ZYC4	1240	1/0.5								
159)	ZYR242	900	1/0.5	213)	ZYP4	1240	1/0.5								
160)	PRJ3	930	5	214)	PRB5	1240	1								
161)	ZYM20	930	5	215)	ZYU76	1240	1/0.25								
162)	ZYH3	930	1	216)	ZYR84	1240	1/0.25								
163)	ZYS25	930	1	217)		1240	1/0.5								
164)	ZYU102	930	1/0.25	218)	PRJ2	1250	1/0.5								
55)	PRF4	°940	50	219)	PRA5	1260	10/5								
95)	PRF5	°960	10/5	220)		1260	1/0.25								
165)	ZYO4	960	10	221)	ZYG	1260	10								
166)	ZYF5	960	1/0.25	222)	ZYL21	1260	5								
38)	ZYR3	°970	1	223)	ZYV65	1260	1/0.25								
167)	ZYH32	970	1	76)	ZYX9	°1270	10								
168)	ZYI26	970	1	224)	ZYS23	1270	1/0.25								
169)	ZYI2	970	5	225)	ZYV62	1270	1								
170)	ZYH21	970	1	226)	ZYU44	1270	1								
67)	ZYB3	°970	0.25	68)	ZYB5	°1270	1								
104)	PRE8	°980	50	101)	PRG3	°1280	50								
95)	PRB9	°1000	50	105)	PRE4	°1300	10/5								
171)	PRB3	1010	2/0.5	47)	ZYR7	°1300	10								
115)	ZYT26	°1010	10	227)	ZYX22	1300	1								
60)	ZYN23	°1010	10/5	228)	ZYR201	1320	1								
172)	ZYO3	1010	1/0.5	119)	ZYG3	°1320	10								
173)		1020	30/20	229)	PRH4	1320	1/0.5								
174)	PRB8	1030	1/0.25	230)	ZYT31	1320	1/0.25								
32)	ZYK25	°1030	5	74)	ZYZ24	1320	10/5								
108)	PRD8	°1030	7.5	231)		1320	1								
105)	PRG2	°1040	50	232)		1320	10								
175)	PRD2	1060	10	15)	PRI8	°1330	1								

Brown Boveri, Switzerland, delivered 100kW sw-tr. (R. Tupi) – **Telefunken A.G, Germany**, delivered 50kW sw-tr. (R. Nacional, Rio de Janeiro).

States Abbreviations: AC=Acre, AL=Alagoas, AM=Amazonas, AP=Amapá, BA=Bahia, CE=Ceará, DF=Brasilia, ES=Espirito Santo, GB=Guanabara, GO=Goiás, MA=Maranhão, MG=Minas Gerais, MT=Mato Grosso, PA=Pará, PB=Paraiba, PE=Pernambuco, PI=Piaui, PR=Paraná, RJ=Rio de Janeiro, RD=Rondonia, RN=Rio Grande do Norte, RS=Rio Grande do Sul, SC=Santa Catarina, SE=Sergipe, SP=São Paulo.

Short Waves:

1) C.P. 401, Uberlandia, MG – 2) Itacoatiara, AM – 3) Parintins, AM – 4) Rua M. Francisco da Rosa 84, São João de Miriti, RJ – 5) C.P. 105, Limeira, SP.

6) Av. Brasil 2770, Governador Valadares, MG – **L.P:** Dir. Gen: Rev. P. H. van der Feesten. Dir. Tec: M. M. Emery – **D.Prgr:** mw: 10.00–14.30, 18.00–02.00. **N:** 11.00, 15.55, 22.00, 23.25, 01.05 – **Ann:** "R. Por Um Mundo Melhor" – **V.** by letter. Re. in P, F, E, G, D, Sp, I.

7) Jaboticabal, SP – 8) Mossoró, RN – 9) C.P. 77, Amparo, SP.

10) C.P. 6, Leopoldina, MG. **Cable:** Sirena – **L.P:** Dir. Gen: G. M. Monteiro – **D.Prgr:** 11.00, 14.00, 21.00, 01.00 – **Ann:** "R. Sirena, do Sistema Radioeducativo Nacional, do Ministerio da Educação e Cultura" – **V.** by letter. Re. in P, E or Sp – **Pub:** Prgr.schedule free.

11) Praça Bom Jesus 67, Anápolis, GO – **Ann:** "Através de suas emissoras de ondas médias e curtas está transmitindo a R. Carajá, de Anápolis, Brasil".

12) C.P. 96, São Carlos, SP – **L.P:** Pres: G. Rossi – **V.** by letter.

13) Carolina, MA – 14) Rua Dr. E. Cordeiro 27, Rio Bonito, RJ.

15) C.P. 246, Araçatuba, SP. **Te:** 2270 – **L.P:** Dir. Gen: J. B. Brussolo. **D.Prgr:** 09.00–01.00. **Japanese:** 12.00–12.30 – **Ann:** "Emissora brasileiras da R. Cultura de Araçatuba PRI8, 1330kc, ondas médais e ZYR231, 2450kc ondas tropicais" – **V.** by letter.

16) Rua Miranda Azevedo 311, Sorocaba, SP – 17) Braganca Paulista, SP – 18) Rua Paes Leme 20, Marilia, SP – **L.P:** Dir. Gen: O. Lignelli – **D.Prgr: Japanese:** 11.00–11.45, 23.00–24.00.

19) C.P. 814, Ribeirão Preto, SP – 20) Av. Cruz Cabuga 394, Recife.

21) Rua Padre Anchieta 741, Bauru – **L.P:** Pres: M. Leuzzi Jr – **D. Prgr:** 09.00–01.30 – **V.** by QSL-card. Re. in P, Sp, E, F.

22) Praça NS Aparecida 315, Aparecida. **Te:** 2197 – **L.P:** Dir. Gen: J. A. Ferreira de Macedo – **Ann:** "R. Aparecida, capital espiritual do pais" – **V.** by letter. Re. in P, E, Sp, F, G or I. Rp – **Pub:** Prgr.schedule free – 23) Natal, RN.

24) C.P. 57, Crato, CE – **L.P:** Pres: V. de Araujo Mattos.

25) Rua Coromandel 117, Belo Horizonte. **Te:** 43385 – **L.P:** Dir. Gen: J. Carneiro. Dir. Tec: U. Nasciliento – **Ann:** "R. Itatiai, a emissora Brasileira que mais cresce" – **V.** by letter. Rp.

26) Rua Pedro II, 148, Guarulhos – **D.Prgr:** 09.00–01.00.
27) C.P. 160, Campina Grande, PB – **L.P:** Dir: J. de Medeiros Cacuon – **Ann:** "R. Borborema, Emissoras Associadas de Campina Grande. – **V.** by letter. Re. in E, F, Sp, I, P.
28) C.P. 173, Uberlandia, MG.
29) C.P. 5, Pres. Prudente, SP – **L.P:** Dir. Gen: A. Campos – **D.Prgr: Japanese:** 12.00–12.30 – **Ann:** "R. Presidente Prudente, uma das Emissoras Coligadas, falando para todo o Brasil" or "PRI5 e ZYR59, R. Difusora de Presidente Prudente, uma das Emissoras Coligadas, transmitindo simultâneamente em ondas médias e curtas 1240kc, onda de 242.5 mts. e 3335kc onda de 89 mts".
30) C.P. 491, Belém, Pará (PA).
31) C.P. 1870, Londrina, PR – **L.P:** Dir. Gen: Dr. R. Zanoni – **D.Prgr: Japanese:** 23.00–23.30.
32) C.P. 1313, Olinda, PE – **D.Prgr:** 1030kc: 08.45–06.00 – **Ann:** "R. Olinda, a emissora da familia pernambucana".
33) C.P. 125, Teresina, PI – **L.P:** Dir. Gen: W. S. Guimaraes.
34) Av. Pres. Vargas 417 a, 12°, Rio de Janeiro, GB.
35) Conquista, BA – 36) C.P. 152, São Luiz, MA – **V.** by letter.
37) C.P. 625, Campinas, SP – **L.P:** Dir. Gen: S. Pedroso – **D.Prgr: Japanese:** 20.30–21.00 – **Ann:** "ZYV3, R. Brasil de Campinas ZYR39, R. de Valinhos emissoras brasilieras da Organização Irmaos Pedroso" – V. by letter.
38) Feira de Santana, BA.
39) Rua P. Pereira 383, Fortaleza, CE – **L.P:** Dir. Gen: M. S. Pimentel – **D.Prgr:** "Jornal das Tres Americas" (News in Sp, E, P): 02.23–02.36 – **N.** in Portuguese: W 14.50, D 01.35 – **Ann:** "R. Dragão do Mar, a emissora do Ceará que o mundo escuta" – **V.** by letter.
40) Av. Liberdade 1034, São Paulo. **Te:** 32-8708 –
41) Guaporé, Porto Velho, RD – **V.** by letter or QSL-card.
42) Rua do Apium 118–130, São Luiz, MA.
43) Av. Vergilio Franco 375, Cambuquira, MG.
44) Palacio do Governo, Joao Pessoa, PB – **D.Prgr: N:** 21.45, 24.00, 01.35 – **Ann:** "PRI4, R. Tabajara da Paraiba transmitindo em ondas curtas e medias" – **V.** by letter, Re. in E, Sp, F.
45) Eduardo Ribeiro 566, Manaus, AM.
46) Praça D. Pedro II°, 17, Petropolis, RJ. **Cable:** Difusora – **L.P:** Dir. Gen: W. Carneiro Malta – **D.Prgr: N:** 16.00, 23.25, 01.05, 02.45 – **Ann:** "Emissoras de ondas médias e curtas da Petropolis R. Difusora, o microfone lider do Estado do Rio" – **V.** by letter.
47) C.P. 578, Fortaleza, CE – **L.P:** Dir. Gen: F. B. Barreto.
48) C.P. 31, Parnaiba, PI – **V.** by letter.
49) C.P. 102, Varginha, MG – **L.P:** Dir. Gen: A. L. Bittencourt – **D.Prgr: N:** 14.15, 21.15 – **Ann:** "Emissoras de Varginha, ZYB2 e ZYV56, em ondas curtas e médias" – **V.** by letter. Re. in P, Sp, E.
50) C.P. 38, Uberaba, MG.
51) Boa Vista, RS – 52) C.P. 125, Teresina, PI.
53) Rua V. do Rio Branco 247, Taubaté, SP. **Te:** 302 – **L.P:** Dir. Gen: E. A. Beringhs – **D.Prgr: N:** 08.30 – **Ann:** "Emissoras Brasileiras da R. Difusora Taubaté, ondas médias e curtas, São Paulo, Brasil" – V. by QSL-card. Re. in E, Sp, P or F.
54) Av. Pres. Vargas 145, Belém, PA. **Te:** 3263 – **L.P:** Dir. Gen: E. Proença. Dir. Tec: M. Franco – **D.Prgr:** mw: 08.30–03.30 – **N:** 10.00, 11.30, 15.25, 20.55, 22.00, 23.30, 02.55 – **Ann:** "PRC5 R. Clube do Pará, Belém, Brasil" – **V.** by letter.
55) Av. Rio Branco 110, Rio de Janeiro. **Te:** 22-1818 – **L.P:** Pres: C. P. Carneiro. Dir. Gen: M. F. do Nascimento Brito – **D.Prgr: N:** 10.55, 15.30, 22.00, 01.55 – **V.** by letter. **FM:** 88.5Mc, 0.25kW.
56) Teresina, PI.
57) Departamento de Imprensa e Radiodifusao do Acre, Rio Branco.
58) C.P. 143, Poços de Caldas, MG – **V.** by letter or QSL-card. **L.P:** Dir: J. Ribeiro Rocha – 59) Av. Eduardo Ribeiro 566, Manaus, AM.
60) Av. 7 de Setembro 311, Salvador, BA. **Cable:** Radicultura.
61) Av. Pres. Vargas 417A, Rio de Janeiro, GB – **L.P:** Pres: J. J. de Carvalho – **V.** by letter or QSL-card.
62) C.P. 22, Araraquara, SP. **Te:** 2828 – **L.P:** Dir. Gen: R. Lupo. Dir. Tec: J. A. Quirino dos Santos – **D.Prgr: N:** 11.30, 14.30, 15.55, 22.00, 23.00, 01.30 – **FM:** 97.3Mc, 0.25kW – **Ann:** "Emissoras da R. Cultura Araraquara PRD4, ZYR60, PRD4-FM" – **V.** by letter.
63) Av. Candido Mendes, Macapá, AP – **L.P:** Dir. Gen: M. Q. da Silva, Dir. Tec: I. A. Veras – **D.Prgr: N:** every h on the h and W 21.30 – V. by letter – **F.Pl:** 10kW sw-tr.
64) Praça J. Calheiros 8, Penedo, AL.
65) Praça J. Pessôa 9, Juiz de Fora, MG – **L.P:** Dir. Gen: Dr. S. V. Mendes – **D.Prgr: N:** 12.00, 15.10, 20.00, 22.30, 00.30 – **Ann:** "Emissoras Brasileiras de ondas curtas e médias da R. Industrial de Juiz de Fora, Estado de Minas Gerais, uma das Componentes do Organização Sergio Mendes, a serviço do Brasil" – **V.** by letter.
66) Sobral, CE – 67) Rua Luiz Gama 492, Lins, SP.
68) C.P. 145, Natal, RN. **Te:** 1205 – **L.P:** Dir. Gen: L. M. Alves – **D.Prgr:** mw: 08.00–03.00. "A Voz de Natal" (typical Brazilian music) D 02.30–03.00 (Ann. in P, E, F) – **V.** by letter. Re. in E, F or Sp.
69) Esc. Estiva 4° and, Vitória, ES – **Ann:** "Estações de ondas médias e curtas R. Capixaba, Vitória, Brasil" – 70) Caxias, MA.
71) Rua Dr. Candido Rodrigues 87, Bragança, PA. **Te:** 112 – **D.Prgr: N:** 09.55, 10.55, 11.55, 19.55, 24.00 – **Ann:** "R. Educadora de Bragança ZYE22, ZYE23 ondas médias e tropical..., a Emissora Católica da familia brasileira" – **V.** by letter. Re. in P.
72) C.P. 79, Campos, RJ. **Te:** 1582 – **L.P:** Dir. Gen: M. F. Sampaio – **D.Prgr: N:** 09.00, 10.00, 10.30, 13.00, 14.30, 16.00, 18.00, 22.00, 01.30 – **Ann:** "PRF7, R. Cultura de Campos pioneira e lider do estado do Rio".
73) Governo Estadual do Maranhão, Rua Osvaldo Cruz 28, São Luiz, MA.
74) São Gonçalo, RJ – **L.P:** Dir. Gen: I. D. Mello, A. de Lima Santana – **D.Prgr: English:** Sun 00.00. **Spanish:** Sat 23.00 – **Ann:** "R. Copacabana, a emissora do Otimismo".
75) C.P. 126, Cuiaba, MT – **L.P:** Dir: J. Oliveira – **D.Prgr: Japanese:** 23.30.
76) C.P. 330, Goiania, GO. **Te:** 2555 – **L.P:** Dir. Gen: J. de Ribamar Leite. St. Mgr: S. O. Castro Filho, L. Rotoli. Dir. Tec: J. Fleury – **D.Prgr: N:** 09.30, 10.59, 11.30, 13.30, 15.00, 15.54, 17.30, 19.30, 21.59, 23.24, 00.30, 01.04, 04.00 – **Ann:** "Sintonizam R. Brasil Central, Goiania, ondas media, curta, tropical e frequencia modulada, a mais possante emissora do interior do pais" – **V.** by QSL-card
77) Av. 13 de Maio 23, Rio de Janeiro, GB – **L.P:** Dir: E. Leite.
78) Aquidauna, MT – 79) Manaus, AM.
80) Av. Anhanguera 92, Goiania, GO – **L.P:** Dir: J. Cainara – **Ann:** "R. Anhanguera, a emissora lider do povo Goiano" – **V.** by letter.
81) C.P. 80, Vitória, ES – **L.P:** Dir. of Broadc: H. Blachman – 82) Rio de Janeiro, GB – 83) Petropolis, RJ – 84) Cuiaba, MT.
85) C.P. 700, Vitória, ES – **L.P:** Dir: J. Cavalcanti. Dir. Tec: J. L. Rocha – **Ann:** "Ouvem a R. Vitória, da capital do Espérito Santo, Brasil" – **V.** by letter.
86) Av. Cásper Libero 88, 2° andar, São Paulo. **Te:** 355151 – **L.P:** Dir. Gen: J. F. Ferreira Jorge. Dir. of Broadc: H. Carvalho de Castro – **D.Prgr: N:** 15.00, 19.00, 01.30, also every h on the h – **Ann:** "PRA6, R. Gazeta a Emissora de Elite" – **INT-SIG:** First movement of "Concert in B" by Tjaikowsky – **V.** by letter. Re. in **P, E, F, Sp.**
87) Rua Caldas Jr. 219, Porto Alegre, RGS – **L.P:** Dir. Gen: A. Pasqualini. Pres: B. Caldas. Mgr: F. A. Gomes. Dir. Tec: Dr. P. Milano. Dir. For. Rel: J. Nunes – **Ann:** "Emissoras da R. Guaiba de Porto Alegre, RGS" – **F.Pl:** mw: 50kW – 88) C.P. 45, Florianopolis, SC – **L.P:** Dir: C. Bonetti – **V.** by QSL-card.
89) Ministerio da Educação e Cultura, Praça da Republica 141-A, Rio de Janeiro, GB. (Owned & operated by The Federal Go, Ministry of Education) – **L.P:** Dir. Gen: Y. Linhare, Mgr: R. Reus. Dir. Tec: M. Casé – **D.Prgr: "Musica Brasileira"** Mo-Thurs 19.30–20.30 on 17875kc with ann. in German (Mo), English (Tues), French (Wed), Spanish (Thurs) – **N:** 12.00, 13.30, 16.45, 18.00, 21.25, 23.55, 02.00 – **Nat. Prgr:** Mo, Wed, Fri 23.30 – **Geography:** Tues, Thurs, Sat 22.30 – **Mathematics:** Tues, Thurs, Sat 23.00 – **History:** Tues, Thurs, Sat 23.30 – **Ann:** "R. Ministerio da Educação e Cultura, transmitindo pela Cultural dos que vivem em nossa tena, pelo progresso do Brasil" – **V.** by letter.
90) C.P. 1027, Belo Horizonte, MG. **Te:** 21589 – **L.P:** Dir. Gen: E. Costa – **D.Prgr: N:** 11.00, 16.00, 22.00, 01.00 – **Ann:** "Aqui Falam PRI3, PRK5, Emissoras de ondas curtas e médias da R. Inconfidência, Belo Horizonte, Minas Gerais, Brasil" – **Int-Sig:** Gong – **V.** by QSL-card or letter. Re. in E.
91) Av. Cruz Cabuga 394, Recife, PE – **Ann:** "R. Clube de Pernambuco, a pioneira" – **V.** by QSL-card.
92) C.P. 8087, São Paulo, SP. **Te:** 334175 – **L.P:** Dir: M. Leuzzi Jr – **D.Prgr:** mw: 24 h. **Japanese:** 08.15–08.30, 11.00–12.30, 16.00–17.00, 22.00–22.30, 23.00–24.00 – **F.Pl:** 25kW – **V.** by QSL-card.
93) Rua Ireneu Marinho 35, Rio de Janeiro – **L.P:** Dir. Gen: R. Marinho. Dir. Tec: L. A. de Medeiros – **D.Prgr: N:** Every h on the h to 03.00 – **Ann:** "R. Globo do Rio de Janeiro, uma emissora de "O Globo", o maior jornal do Pais" – **V.** by QSL-card. Re. in P, Sp, E, F.
94) C.P. 448, Curitiba, PR – **V.** by QSL-card.
95) Av. Miruna 713, São Paulo, SP – **Ann:** PRH7: "R. Panamericana, a emissora dos emissora dos esportes", "R. Record, SP, Brasil".
96) Ministerio da Agricultura, Largo da Misericordia 4° andar, Rio de Janeiro – **Ann:** "R. Rural, Emissora do Agricultor do Ministerio da Agricultura, Rio de Janeiro, Brasil" – **V.** by QSL-card.
97) Setor Radio e TV, C.P. 95, Brasilia, DF – **L.P:** Dir: H. Cyrinho.
98) Rua Marquez do Recife, PE – **L.P:** Dir. Gen: Dr. F. Pessoa de Queiros – **D.Prgr:** mw: 07.55–04.00. **English:** "Brasil Calling" D 01.05–01.30 – **Ann:** P: "R. Jornal do Comércio, Recife, Pernambuco, ondas médias e curtas" or "Emissoras da R. Jornal do Comércio, Pernambuco, a voz mais potente do Brasil". E: "Pernambuco speaking to the world. This is Brazil Calling" – **V.** by QSL-card.
99) C.P. 252, 4142, São Paulo. **Te:** 34-4181 – **L.P:** Dir. Gen: A. Oliveira. Dir. Tec: J. Tavares Couto – **D.Prgr: Japanese:** 10.00–10.30, 21.00–22.00, 23.00–01.00 – **V.** by QSL-card or letter.
100) C.P. 222, Fortaleza, CE – **L.P:** Dir: M. E. Pinheiro Campos.
101) Av. Venezuela 43, Rio de Janeiro, GB – **L.P:** Dir. Gen: J. Medeiros Calmon – **Ann:** "R. Tupi do Rio de Janeiro, o Cacique do Ar" – **V.** by letter.
102) Rua Sebastião Pereira 218, São Paulo, SP – **L.P:** Dir. Gen: V. Cósta Jr. Mgr: Dr. J. M. Araujo – **Ann:** "PRG9, R. Nacional, São Paulo, Brasil" – **V.** by QSL-card and letter – **F.Pl:** 150kW on mw.
103) C.P. 1164, Porto Alegre, RS. **Cable:** Pioneira – **V.** by QSL-card.
104) Praça Maua 7, 19–22° andar, Rio de Janeiro. **Te:** 438850 –

L.P: Pres: S. C. Lopes. Dir: M. Aréas. Dir. Tec: J. Nobrega – D. Prgr: mw: 24 h. N: W: 09.05, 11.00, 13.00, 15.55, 16.50(Sat only), 17.00*, 18.00*, 19.00*, 20.30*, 22.00, 23.25, 01.05, 04.00. Sun: 09.05, 15.55, 21.00, 23.35. *=not Sat – Ann: "Ouvem R. Nacional, Rio de Janeiro, Brasil, por suas emissoras de ondas curtas, médias e frequência modulada" – Int-Sig: First movement of the Brazilian musical poem "Luar do Sertão" – V. by QSL-card.

105) Rua 7 de Abril 230, São Paulo, SP – L.P: Pres: E. Monteiro – D.Prgr: mw: 09.00–05.00. Japanese: 09.00–10.00, 15.00–16.00 – Ann: "PRE4, R. Cultura de São Paulo, transmitiendo em ondas médias, curtas e frequência modulada".

106) Rua S. Paulo 516, Belo Horizonte, MG.

107) Rua Paula Souza 181, São Paulo. Te: 22-1132 – L.P: Pres: J. Jorge Saad – D.Prgr: mw: 24 h – Ann: "R. Bandeirantes de São Paulo, transmitindo simultaneamente pelas suas estações: PRH9, ondas médias 840kc, ZYR77, ondas curtas 6185kc, ZYR78, ondas curtas 11925kc, a mais popular Emissora Paulista" – Int-Sig: Vibraphone and organ – V. by QSL-card or letter.

108) Rua Riachuelo 48, Rio de Janeiro, GB. Te: 52-8021

109) Departamento de Segurança Nacional, Rua da Relação, Rio

110) Av. Erasmo Braga 118, Rio de Janeiro, GB – L.P: Dir. Gen: M. Miranda – D.Prgr: mw: 10.00–03.00.

111) C.P. 471, Curitiba, PR. Te: 41393 – L.P: Dir. Gen: Dr. N. Chede. Dir. Tec: O. Leining – D.Prgr: mw: 09.00–03.00. Japanese: 11.15–12.00. ZYS47 R. Curitibana: 09.00–02.00 – Ann: "Emissoras de ondas curta, médias e frequencia modulada da R. Emissora Paranaense, Curitiba, Parana, Brasil" – "ZYS47, R. Curitibana 640kc" – V. by letter and QSL-card. Re. in Sp, P, I, E, F, G.

112) Rua Mayrink Veiga 15, Rio de Janeiro. Te: 235991 – L.P: Dir: M. Leuzzi Jr – D.Prgr: mw: 24 h – Ann: "Transmite a R. Mayrink Veiga do Rio de Janeiro, PRA9 onda media, ZYZ27 e ZYZ28 ondas curtas" – V. by QSL-card. Rp. Re. in P, E, F, Sp

113) Rua Wenceslau Braz. 78, São Paulo. Te: 33.32.46 – L.P: Dir: D. A. Macedo, A. Zioni – D.Prgr: Japanese: 08.30–09.00, 09.15–10.30, 15.30–16.30, 18.00–19.30. N. in Portuguese: Every half h – Ann: "R. Nove de Julho de São Paulo, Brasil" – V. by QSL-card or letter.

114) Rio de Janeiro, GA.

115) C.P. 331, Florianopolis, SC – L.P: Dir. Gen: Dr. P. K. Bornhausen – Ann: "Emissoras brasileiras de onda média e curta da R. Diario da Manhã, de Florianópolis, Santa Catarina", or "Estações de Florianópolis da R. Diario da Manhã" – V. by QSL-card.

116) Av. Epaminondas 555, Manaus, AM – L.P: Dir. Gen: C. Hamu. Dir. Tec: E. Linhares – D.Prgr: mw: 09.30–04.30. N: 10.00 and every h from 11.30 to 23.30, 01.30, 02.30 – Ann: "ZYB20 e ZYB22, Emisoras da R. Rio Mar de Manaus, Brasil" – V. by letter. Re. in P, E, Sp.

117) Ministerio do Trabalho, Rio de Janeiro – Ann: "Escutam a R. Maua, a emissora do trabalhador".

118) C.P. 908, Porto Alegre, RGS – L.P: Dir. Gen: F. Peres. Dir. Tec: R. dos Santos – D.Prgr: mw: 09.00–04.00. N: 10.30, 11.00, 12.00, 12.30, 13.00, 13.30, 14.00, 14.30, 16.00, 17.00, 17.30, 18.00, 19.00, 19.30, 20.00, 20.30, 20.55, 22.00, 00.00, 00.30, 01.00, 01.30, 01.40, 03.00, 03.30, 03.55 – Ann: "R. Farroupilha, Porto Alegre, Brasil" – V. by letter. Re. in P, E, Sp – Pub: Prgr. on request.

119) C.P. 62, Goiania, GO. Te: 4042 – L.P: Dir. Gen: Dr. E. Braga Sobrinho. Dir. Tec: T. Rotoli – D.Prgr: N: 10.15, 11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 18.00, 19.00, 20.00, 21.00, 22.20, 02.00 – Ann: "Sintonizam R. Clube de Coiánia, Rede Nacional de Emissóras Associadas, Goiás falando para o Brasil" – V. by letter. Rp.

120) Curitiba, PR – 121) Rua Carlos Gomes 57, Salvador, BA.

122) C.P. 1053, Curitiba, PR – 123) Rua 15 Novembro 717, RS – 124) C.P. 18, Ribeirão Preto, SP. Te: 2879 – L.P: Dir. Gen: J. Laureano. St. Mgr: M. Simoes Filho. Dir. Tec: W. L. Perin – Ann: "PRA7, R. Clube de Ribeirão Preto, onda média de 730kc e ZYR206, onda curta de 15415kc" – V by letter.

125) R.U.S.D – I.T.A, São José dos Campos, SP. Te: 450 – L.P: Dir. Gen: A. Tyla. Dir. Tec: L. Oranje – D.Prgr: N: 23.25, 23.55, 00.25, 00.55. English: Mo 24.00 "A View of Brazil" – Ann: "Ondas Curtas, 16 metros, ZYR32, RUSD – R. Universitaria Santos Dumont, a primeira emissora genuinamente universitaria do Brasil" – V. by letter – F.Pl: FM 1kW.

Medium Waves:

126) R. Borborema, Joao Pessoa, PB – 127) R. Soc. Passos, Passos, MG – 128) R. Emis. de Recife, Recife, PE – 129) Soc. Radio Atlantica, Praça Correa Melo 1, Santos, SP – 130) R. Cataguazes, Cataguazes, MG – 131) R.Dif. Brasileira, Prata, MG – 132) R. Londrina, PR – 133) R. Assunção Cearense, Fortaleza, CE – 134) R. Dif. Cuiabá, Cuiabá, MT – 135) R. Dif. Triangulina, Uberaba, MG – 136) R. Dif. Cambará, Cambará, PR – 137) R. Dif. Sergipe, Aracaju, SE – 138) R. Santamariense, Santa Maria, RS – 139) R. Dif. Portoalegrense, Rua Uruguai 155, Porto Alegre, RS – 140) R. Cultura de Sergipe, Aracaju, SE – 141) Empreza Jornal do Comercio, Limoeiro, PE – 142) R. Soc. Ponta Grossa, Ponta Grossa, PR – 143) R. Mineira, Belo Horizonte, MG – 144) R. Cl. de Lages, Lages, SC – 145) R. Bela Vista, Uberlandia, MG – 146) R. Dif. de Minas Gerais, João Monlevade, MG – 147) R. Nordeste, Macau, RN – 148) Soc. de R. Tubá, Tubarão, SC – 149) Soc. R. Hora Certa, Praça da Liberdade 61-7°, São Paulo, SP – 150) R. Marumby, Curitiba, PR – 151) R. Universal, Santos, SP – 152) R. Dif. Paraisense, São Sebastião do Paraiso, MC – 153) Universidade de Recife, Recife, PE – 154) R. Excelsior da Bahia, Salvador, BA – 155) R. Rural de Concordia, Concordia, SC – 156) R. Mundial, Av. Rio Branco 181, Rio, GB – 157) R. Itai, Itai, RS – 158) R. Nordeste, Natal, RN – 159) R. Cult. de Rio Preto, Sao José do Rio Preto, SP – 160) S.A. Radio Araguari, Araguari, MG – 161) R. Liberdade de Sergipe, Aracaju, SE – 162) Soc. R. Cultura de Sao Vicente, Sao Vicente, SP – 163) R. Paranaense, Timoneira, PR – 164) R. Aratiba, Aratiba, RS – 165) Governo do Estado de Alagoas, Maceió, AL – 166) Emis. Reunidas R. Cultura, Passo Fundo, RS – 167) R. Educadora do Nordeste Ltda, Sobral, CE – 168) R. Brejui Ltda, Currais Novos, RN – 169) R. Imembui S.A, Santa Maria, RS – 170) R. Iracema de Fortalesa S.A, Juazeiro do Norte, CE – 171) R. Soc. de Juiz de Fóra, Juiz de Fora, MG – 172) R. Chavantes, Ipameri, GO – 173) R. Campos Gerais, Curitiba, PR – 174) R. Rio Preto, Sao José do Rio Preto, SP – 175) R. Emis. Metropolitana, Rio de Janeiro, GA – 176) R. Cl. de Sorocaba, Sorocaba, SP – 177) R. Cultura de Feira de Santana, F. Santana, BA – 178) R. Cl. de Patos, Patos, MG – 179) R. Teofilo Otoni, Teofilo Otoni, MG – 180) R. Soc. de Friburgo, Nova Friburgo, RJ – 181) Universidade do Rio Grande do Sul, Porto Alegre, RS – 182) R. Minas, Belo Horizonte, MG. 183) R. Dif. de Carvaru, Caruarú, PE – 184) R. Piratininga de Votuporanga, Votuporanga, SP – 185) R. Colon, Joinville, SC – 186) R. Cl. de Conquista, Vitoria da Conquista, BA – 188) R. Emis. do Nordeste, Flores da Cunha, RS – 189) R. Anita Garibaldi, Florianopolis, SC – 190) R. Tapajóz Ltda, Sao José dos Pinhais, PR – 191) R. Planalto de Araguari Ltda, Araguari, MG – 192) Mossoró R. Soc, Mossoró, RN – 193) R. Cultura de Gravataí, Gravataí, RS – 194) R. Dif. Vale do Itajaí, Itajaí, SC – 195) R. Acaica, Belo Horizonte, MG – 196) R. Presidente Wenceslau, P. Wenceslau, SP – 197) R. Cl. de Londrina, Londrina, PR – 198) R. Cariri, Campina Grande, PB – 199) R. Dif. de Joinville, Joinville, SC – 200) R. Dif. de Mossoró, Mossoró, RN – 201) R. Educadora de Campinas S.A, Campinas, SP – 202) R. Princesa do Jacui, Candelaria, RS – 203) Prefeitura Municipal de Passo Fundo, Passo Fundo, RS – 204) R. Nazareth, Belem, PA – 205) R. Piratininga, Sao Paulo, SP – 206) R. Pampa, Porto Alegre, RS – 207) R. Cachoeira de Itapemirim, Cachoeira de Itapemirim, ES – 208) R. Baré, Cuiaba, MT – 209) Empreza Jornal do Comercio, Garanhuns, PE – 210) R. Sul Riograndense, Erechin, RS – 211) R. Dif. do Amazonas, Manaus, AM – 212) Soc. Ubaense, Ubá, MG – 213) R. Dif. Guarapuava, Guarapuava, PR – 214) R. Cl. Hertz, Franca, SP – 215) Emis. Riograndenses, Pelotas, RS – 216) R. Presidente Wenceslau, Pres. Prudente, SP – 217) R. Capibaribe de Recife, Recife, PE – 218) Rede Paranaenses de Emissoras, Ponta Grossa, PR – 219) Emissoras Unidas, Av. Angelica 430, Sao Paulo, SP – 220) R. Educacao Rural, Campo Grande, MT – 221) R. Cl. do Piaui, Teresina, PI – 222) R. Gazeta de Alagas, Maceió, AL – 223) R. Ibituruna, Governador Valadares, MG – 224) R. Cultura de Maringá, Maringá, PR – 225) Soc. R. Carijós, Conselheiro Lafaiete, MG – 226) R. Cl. Metropole, Porto Alegre, RS – 227) R. Cultura de Cuiaba, Cuiaba, MT – 228) R. Dirceu de Marilia, Marilia, SP – 229) S. R. Dif. Cultura de Pelotas, Pelotas, RS – 230) R. Herval do Oeste Ltda, Joaçaba, SC – 231) R. Cultura de Piaui, Teresina, PI – 232) Soc. R. Dif. A Voz da Amazonia, Manaus, AM – 233) R. Operaria de Araxa, Araxa, MG – 234) R. Diamantina, Diamantina, MG – 235) Soc. Educadora de Itajuba, Itajuba, MG – 236) R. Cl. de Blumenau, Blumenau, SC – 237) Empresa Jornal do Comercio, Triumfo, PE – 238) R. Dif. do Pará, Belem, PA – 239) R. Arapuan Ltda, João Pessoa, PA – 240) R. Gurupi, Sao Luis, MA – 241) R. Soc. Oeste Catarinense, Chapecó, SC – 242) R. Guaratm, Santa Maria, RS – 243) R. Dif. Sul da Bahia, Itabuna, BA – 244) R. Borborema, Campina Grande, PB – 245) R. Estadual, Canoinhas, SC – 246) R. Uirapuru de Fortalesa, Fortalesa, CE – 247) R. Alvorada, Marau, RS – 248) R. Continental do Recife S.A, Recife, PE – 249) R. Dif. de Iguape, Osasco, SP – 250) R. Tingui, Piraquara, PR – 251) R. Sul Fluminense, Barra Mansa, RS – 252) Empresa Jornal do Comercio, Pesqueira, PE – 253) R. Jornal de Minas, Belo Horizonte, MG – 254) R. Educadora de Cariri, Cariri, CE – 255) R. Dif. de Rio Preto, São José do Rio Preto, SP – 256) R. America, Rua Consolação 166, São Paulo, SP – 257) R. Tamoio, Fortaleza, CE – 258) Soc. R. Imbiara de Araxá, Araxá, MG – 259) R. Triunfo, Porto Alegre, RS – 260) R. Vera Cruz, Rua Buenos Aires 168, Rio, GB – 261) R. Cl. de Teresina, Teresina, PI – 262) R. Cl. de Tupá, Tupá, SP – 263) R. Bare, Manaus, AM – 264) R. Cl. de Santos, Santos, SP – 265) R. Caturite, Campina Grande, PB – 266) Campos Dif, Campos, RJ – 267) R. Corodos, Curitibanos, SC – 268) R. Iracema de Fortaleza, Sobral, CE – 269) R. Cl. de Rio Claro, Rio Claro, SP – 270) R. Emis. Convenção do Itu, Itu, SP – 271) R. Soc. Muriaé, Muriaé, MG – 272) R. Espinhares de Patos, Patos, PB – 273) R. Cl. Pres. Epitacio, Pres. Epitacio, SP – 274) R. Progresso, Novo Hamburgo, RS – 275) R. Araripe, Crato, CE – 276) Soc. Emiss. Continental, Campos, RJ – 277) R. Dif. A Voz de Bage, Bage, RS – 278) Soc. R. Novo Horizonte, Novo Horizonte, SP – 279) R. Nordeste, Nova Cruz, RN – 280) R. Cultura do Nordeste, Caruaru, PE – 281) R. Cultura de Santo Amaro, Santo Amaro, BA – 282) R. Jornal de Maringa, Maringa, PR.

CHILE

L.T: GMT÷4 h – Pr.L: Spanish.

ASOCIACION DE RADIODIFUSORAS DE CHILE

ADDR: Cas. 10476, Santiago de Chile. Cable: Archi. Te: 34509. L.P: Pres: R. Vergara. Mgr: J. Menadier Carrasco.

STATIONS: All st's comm. exc. 9), 61), 87) (Cultural) – S.w: Call letters CE are used for all zones – M.w: Call letters CA, CB, CC and CD indicate: A=No. Zone, B=Central Zone, C=So. Zone and D=Antarctic Zone. The figures indicate the frequency in kc minus one cipher, f.inst. CB82=Central Zone 820kc.

Short Waves: *=inactive.

Call	kc	m		Name	h of tr.
1) CE600	6000	50.00		R. El Carbon, Lota	
2) CE601	6010	49.92	1	R. Norte, Antofagasta	11.00–04.00
3) CE602	6020	49.83	1	Diego Portales, Santiago	11.00–05.00
4) CE604	6045	49.67	0.25	R. Libertad	11.00–04.00
5) CE607	6070	49.42	5	Soc. Nac. de Mineria	11.00–05.30
6) CE610	6100	49.18	0.25	R. Calama	11.00–04.00
7) CE611	6110	49.10	5	Soc. Nac. de Agricult.	11.00–05.00
8)	*6130	48.94	1	R. El Morro, Arica	
9) CE613	6135	48.90	1	R. Universidad de Concepción	12.00–04.00
10) CE615	*6150	48.78	5	La Voz de Chile, Valparaiso	
11) CE619	6190	48.47	5	Corp. Chilena Broadc.	11.25–05.00
12) CE955	9550	31.41	1	R. Valentin Letelier, Valparaiso	23.00–03.00 (Sat/Sun 20.00–03.00)
13) CE960	9598	31.26	2.5	R. Pres. Balmacéda, Santiago	10.00–05.00
10) CE965	9650	31.09	1	R. Yungay, Santiago	11.30–06.30
14) CE970	9700	30.93	10	La Voz de Chile, Santiago	11.00–04.30
15) CE1174	11740	25.55	5	R. Nuevo Mundo, Santiago	11.00–04.30
7) CE1180	11800	25.42	1	Soc. Nac. de Agricult.	11.00–05.00
16) CE1185	11850	25.32	2.5	R. Cruz del Sur, Santiago	11.00–04.00
10) CE1190	11900	25.21	5	La Voz de Chile, Valparaiso	11.00–04.30
5) CE1196	11960	25.08	5	Soc. Nac. de Mineria	11.00–05.30
5) CE1511	*15115	19.85	5	Soc. Nac. de Mineria	
11) CE1515	15148	19.80	5	Corp. Chilena Broadc.	11.25–05.00

Medium Waves: °=Short Wave.

Call	kc	kW	Call	kc	kW	Call	kc	kW
17) CB54	540	1	46) CD96	960	3.0	73) CB134	1340	1
7) CB57	°570	15	47) CB97	970	1	74) CD134	1340	0.15
3) CB59	590	50	48) CC97	970		75) CA135	1350	0.25
18) CC59	590	1	49) CD97	970		76) CC135	1350	1
19) CA59	590		14) CB101	°1010	1	77) CD136	1360	2.5
20) CB62	620	2	50) CD101	1010	1	78) CB136	1360	0.5
21) CA63	630	0.25	12) CB103	1030	1	79) CD137	1370	1
22) CB63	630	1	51) CD103	1030	10	16) CB138	°1380	2.5
23) CD63	630	1	52) CA103	1030		80) CC140	1400	
24) CA64	640	0.5	5) CB106	°1060	100	81) CD140	1400	
25) CB64	640	1	53) CA108	1080	1	82) CA141	1410	
26) CC64	640	1	3) CC108	°1080	1	83) CB141	1410	1
27) CB66	660	50	54) CA109	1090	0.25	84) CC141	1410	1
28) CC67	670		55) CC109	1090	1	85) CA142	1420	
5) CB68	680	1	56) CD109	1090		86) CA142	1420	
29) CC68	680	0.5	57) CB111	1110	1	87) CB143	1430	0.25
30) CB69	690	10	58) CD111	1110	1.25	88) CC143	1430	0.1
31) CD69	690	1.2	11) CB114	°1140	50	89) CC144	1440	1
32) CA70	700	0.25	59) CB116	1160	10	90) CC145	1450	
10) CB73	°730	10	60) CC116	1160	1.5	91) CD145	1450	2.5
10) CB76	°760	75	3) CB118	°1180	50	92) CB146	1460	0.1
33) CB78	780	1	61) CB120	1200	1	93) CD146	1460	0.25
34) CA82	820	0.5	62) CA120	1200		94) CA147	1470	0.1
35) CB82	820	1	63) CA121	1210	0.25	95) CB147	1470	0.25
36) CD82	820	1	7) CD121	1210	10	96) CC147	1470	0.25
37) CB84	840	1	64) CB124	1240	0.25	97) CC148	1480	0.25
38) CC84	840	0.8	65) CC125	1250	1	98) CB149	1490	
39) CD84	840	1	8) CA126	°1260	10	99) CB150	1500	0.5
40) CB89	890	1	66) CB126	1260	1	100) CA152	1520	0.5
41) CD89	890	1	2) CA127	°1270	1	101) CC152	1520	0.25
9) CC89	°890	1	67) CC127	1270	0.25	102) CB153	1530	0.25
4) CA90	°900	1	68) CD127	1270	1	103) CB154	1540	0.25
7) CB90	°900	1	13) CB130	°1300	10	104) CC155	1550	
42) CC90	900	0.1	69) CB132	1320	1	105) CD155	1550	
43) CD90	900		70) CD132	1320	1	106) CB156	1560	1
15) CB93	930	20	71) CA132	1320		1) CC157	°1570	
44) CA96	960	0.3	72) CC133	1330	0.15	107) CB160	1600	
45) CC96	960							

Short Waves:

1) Cas. 66, Lota. Te: 63. L.P: Mgr: N. Mosciatti.

2) Cas. 556, Antofagasta. Te: 383. L.P: J. Cvitanic.

3) CC108/CE602: Cas. 21-D, Talca. CB118: Cas. 13962, Santiago. CB59: Cas. 89V, Valparaiso. Te: Talca 33076, Santiago 68279, Valparaiso 57657. L.P: Dir. Gen: R. Tarud S. Dir. Tec: A. Hasbun A. D.PRGR: N: 11.30 and from 12.00 every h on the h to 04.00, 04.30.

4) Cas. 457, Antofagasta. L.P: Dir: A. Cajiao.

5) CB106: Cas. 2626, Santiago. Cable: Radiomineria. Te: 381341. CB68: Cas. 337, Viña del Mar. L.P: CB106: Dir. Gen: E. Sánchez, B. Suárez. Dir. Prgr: R. Rojas R. Dir. Tec: R. Fuentes A. CB68: Mgr: L. Munoz. D.PRGR: N: 11.00, 16.40, 18.10, 01.00, 02.30. ANN: "Santiago de Chile. R. Soc. Nac. de Mineria". INT-SIG: Gong. V. by QSL-card. Re. in E or Sp.

6) Cas. 1, Calama. L.P: Dir: P. Vergara Keller. D.PRGR: N: 11.00, 12.00, 16.40, 17.30, 01.00, 02.30. V. by QSL-card.

7) CB57: Cas. 40-D, Santiago. Te: 64660. CB90: Cas. 90, Valparaiso. Te: 6891. CD121: Cas. 327, Los Angeles. Te: 517. L.P: CB57: Dir: F. Echeverria M. CB90: Mgr: A. Coronel. Dir. Tec: A. Urbina. D.PRGR: N: 11.30, 13.00, 16.00, 17.00, 17.30, 23.00. V. by QSL-card.

8) Cas. 463, Arica. L.P: Dir: C. Nieto G. D.PRGR: 11.00–06.00. V. by letter.

9) Cas. 2337, Concepción. Te: 23207. L.P: Mgr: F. Dussuel. Dir. Tec: O. San Martin. D.PRGR: N: 12.15, 17.15, 01.30. Wrp: 01.30. L.L: French 14.30, 23.30. ANN: "Transmite R. Universidad de Concepción, CC89 en Onda Larga, CE613 en Onda Corta en la Banda de 49 metros y con su equipo de Frecuencia Modulada en 95.1 megaciclos, desde la Ciudad Universitaria, Concepción, Chile. V. by QSL-card and letter. Re. in E, Sp. PUB: Prgr.schedule on request.

10) CB76: Cas. 13130, Santiago. CB73: Cas. 73V, Valparaiso. Cable: Vitalradio. AD: 15 min. per h. L.P: CB76: Exec. Pres: C. A. Vial. Asst. Gen. Mgr: V. Tischenko. CB73: Gen. Mgr: R. Reyes. D.PRGR: N: 11.30, 12.15, 13.00, 14.00, 15.15, 16.00, 16.45, 17.00, 18.00, 19.00, 20.00, 21.00, 22.00, 23.00, 24.00, 00.15, 01.00, 02.00, 03.00. Wrp: 11.45, 12.15, 17.15, 01.00, 02.00. ANN: "Emisoras La Voz de Chile, Radios La Cooperativa". All st's transmit simultaneously: "Transmite La Cadena Radial "La Voz de Chile" por sus estaciones R. La Cooperativa". INT-SIG: Gong with central theme of "Pomp and Circumstance". V. by QSL-card and letter. Records accepted –

11) Cas. 244V, Santiago. L.P: Dir: S. Fernandez. D.PRGR: N: 12.00, 16.30, 20.00, 01.00, 04.00. ANN: "Transmitiendo CB114, R. Corporacion, Santiago de Chile, Quesdese en el Canal CB114".

12) Escuela de Derecho Universidad de Chile, Box 211V, Valparaiso. ANN: "Esta es Radio Valentin Letelier, de la Escuela de Derecho de Valparaiso, de la Universidad de Chile, transmitiendo en Onda Larga CB103, en 1030 kilociclos, en Onda Corte CE955, en 9550 kilociclos, y en Frecuencia Modulada CE 103.4 en 103.4 megaciclos por segundo". V. by QSL-card or letter. Re. in Sp or E.

13) Calle Nueva York 53, 7° piso, Santiago. Te: 88720. L.P: Dir. Gen: J. A. de Wetzig. St. Mgr: R. Deformes R. Dir. Tec: P. del Campo. D.PRGR: N: Every h on the h. INT-SIG: 1 gong with notes from "Los Copihues Rojos". V. by QSL-card.

14) Cas. 3041, Santiago. L.P: Dir: H. Beweis. ANN: "CB101 y CE766 Estaciones de Radio Yungay de la Corporacion de Radiodifusion, Santiago de Chile". INT-SIG: First movement of the song "Donde el Azul de la Noche encuentra el Ove del Dia". V. by letter.

15) Cas. 9255, Santiago. Cable: R. Nuevo Mundo. Te: 382392. L.P: Dir. Gen: J. Raggio, Juan Yunis. Dir: R. Olivares. D.PRGR: N: 11.30, 12.30, 13.00, 14.00, 15.00, 16.00, 18.00, 19.00, 20.00, 21.00, 22.00, 23.00, 01.00, 03.00. ANN: "Estas son Las Emisoras Nuevo Mundo de Santiago de Chile que transmitem por CB93, CE1174 estacion de Onda Corta en la banda de 25 metros y su equipo de FM en 93 Megaciclos". V. by QSL-card and letter. Re. in Sp, E.

16) Plaza Bulnes 47, Santiago. L.P: Mgr: Claudio Poblete.

Medium Waves:

17) R. Ignacio Serrano, Ugalde 615, Claudio

18) R. Condor, Ca. 486, Concepción. D.PRGR: 11.00–04.00.

19) R. Mineria, Hotel Turismo, Antofagasta. L.P: Dir: A. Lieux.

20) R. La Reina, Nueva York 25, Santiago. L.P: Dir: L. Brain.

21) R. Esmeralda, Cas. 209, Iquique. Te: 572.

22) R. Pres. Prieto, Cas. 37V, Valparaiso.

23) R. Sur, Cas. 60-D, Valdivia. D.PRGR: 11.00–04.00.

24) R. Norte Verde, Cas. 252, Ovalla. L.P: Dir: F. Morales.

25) R. Andrés Bello, Mac Iver 142, Santiago. L.P: Mgr: J. Morris.

26) R. El Sur, Cas. 482, Concepción. L.P: Dir: J. Valenzuela.

27) R. Chilena, Cas. 10277, Santiago. L.P: Dir: E. Menchaca.

28) R. El Libertador, Cas. 110, Rancagua.

29) R. Lautaro, Cas. 214, Talca. L.P: Dir: E. Tarud.

30) R. Santiago, Cas. 10195, Santiago. L.P: Dir. Gen: R. Vergara. Dir. Tec: P. del Campo. D.PRGR: N: 11.30, 17.00, 00.45, 01.30. English: 02.30–03.00. ANN: "CB69 y CE97.1 R. Santiago, en Santiago de Chile – 31) R. La Frontera, Cas. 516, Temuco.

32) R. Coya, Maria Elena, Antofagasta, or Cas. 13260, M. Elena.

33) R. Caupolican, Cas. 506, Valparaiso – 34) R. del Salitre, Cas. 7-D, Iquique.

35) R. Del Pacifico, Cas. 3591, Santiago. L.P: Dir: R. Vivado & J. Quinteros. D.PRGR: 24 h – 36) R. Concordia, Cas. 119, La Union.

37) R. Recreo, Cas. 596, Viña del Mar. L.P: Mgr: E. Godoy D. Dir. Tec: J. C. Tribuzio. D.PRGR: 12.00–04.00.

38) **R. Almirante Latorre,** Cas. 358, Talcahuaño.
39) **R. Sago,** Cas. 35-O, Osorno. **Cable:** Radiosago. **FI:** By adv. **L.P:** Dir: Roberto Luna. **D.PRGR:** 11.30–04.00.
40) **R. Bulnes,** Cas. 1555, Santiago. **L.P:** Dir: C. Briceño.
41) **R. Polar,** Cas. 13-D, Punta Arenas. **L.P:** Dir: P. Torreso. **D. Prgr:** 11.30–04.00. **V.** by letter.
42) **R. El Roble,** Cas. 37, Parral. **L.P:** Dir: J. Rogazy.
43) **R. Vicente Perez Rosales,** San Felipe 80, Puerto Montt.
44) **R.Riquelme,** Cas. 92, Coquimbo – 45) **R. Condell,** Yungay 10, Curico.
46) **R. Camilo Henriquez,** Casilla 28-A, Valdivia.
47) **R. Prat,** Cas. 10210, Santiago. **L.P:** Dir: P. Valenzuela. **D.PRGR:** 11.00–05.40. **ANN:** "Esta es CB97 todo el dia informando".
48) **R. Interamericana,** Cas. 97, Concepción.
49) **R. Payne,** Cas. 97, Puerto Natales. **L.P:** Dir: J. Navarro.
50) **R. Llanquilhue,** Cas. 356, Puerto Montt. **D.PRGR:** 11.00–04.00.
51) **R. Cautin,** Cas. 40-D, Temuco. **L.P:** Dir: M. Fernández M.
52) **R. La Portada,** Cas. 556, Antofagasta. **L.P:** Dir: Simón Guttmann.
53) **R. La Serena,** Cas. 118, La Serena – 54) **R. Toco,** Cas. 808, Tocopilla.
55) **R. Rancagua,** Cas. 21, Rancagua. **L.P:** Dir: Jorge Romero.
57) **R. Viña del Mar,** Cas. 534, Viña del Mar.
58) **R. Austral,** Cas. 40-D, Punta Arenas. **L.P:** Dir: J. Navarro.
59) **R. José Miguel Carrera,** Tenderini 115, piso 9, Santiago.
60) **R. Simon Bolivar,** Cas. 318, Concepción. **L.P:** Dir: A. Jaén.
61) **R. Universidad Tecnica del Estado,** Avda. Ecuador 3469, Santiago. **Te:** 92981. **L.P:** Dir: M. T. Femenías. Dir. Tec: J. Arenas K. **D. Prgr:** 17.00–04.00. **N:** 17.30, 02.00.
62) **R. Tocopilla,** Cas. 2001, Tocopilla. **L.P:** Dir: Antonio Arce.
63) **R. Atacama,** Cas. 57, Copiapo. **Te:** 171.
64) **R. Valparaiso,** Cas. 1096, Valparaiso. **L.P:** Dir: J. O'Shee.
65) **R. Lircay,** Cas. 450, Talca – 66) **R. Nacional,** Cas. 9987, Santiago.
67) **R. Ñuble,** Cas. 21-B, Chillan. **L.P:** Dir: V. Busto.
68) **R. Patagoñia Chilena,** Cas. 53, Coyhaique.
69) **R. Portena,** Cas. 887, Valparaiso
70) **R. Baquedano,** Cas. 758, Valdavia. **L.P:** Gen. Mgr: C. Cockbaine. **D.Prgr:** 12.00–18.30, 20.00–03.00. **V.** by QSL-card.
71) **R. Calama,** Cas. 1, Calama. **L.P:** Dir: P. Vergara.
72) **R. La Discusión,** Cas. 14-D, Chillan. **L.P:** Dir: A. Lagos.
73) **R. Cervantes,** Cas. 4650, Santiago. **L.P:** Dir: G. Holtehuer.
74) **R. Malleco,** Cas. 204, Victoria. **L.P:** Dir: G. Servanti.
75) **R. Pampa,** P. Devald – 76) **R. Minerva,** Cas. 339, Rancagua.
77) **La Voz del Sur,** Cas. 53-D, Punta Arenas. **D.PRGR:** 11.30–04.00. **V.** by letter – 78) **R. Panamericana,** Alameda 924, Santiago.
79) **R. Eleuterio Ramirez,** Ramírez 652, Osorno.
80) **R. Rengo,** Urriola 85, Rengo. **L.P:** Dir: Arturo Vergara.
81) **R. Pudeto,** Edificio Yuri, Ancud. **L.P:** Dir: José Leal.
82) **R. Antofagasta,** Cas. 439, Antofagasta. **L.P:** Dir: José Garcia.
83) **R. Chacabuco,** Cas. 370, Quillota. **L.P:** Dir: Giraudo, Achondor & Cia – 84) **R. Araucania,** Cas. 462, Concepción. **L.P:** Dir: R. Arjona.
85) **R. Chañaral,** Comercio 53, Chañaral. **L.P:** Dir: Hoguer Garrao.
86) **R. A. de Ercilla,** Cas. 369, Illapel. **L.P:** Dir: Hernán Pinochet.
87) **Univ. Tecnica Santa Maria,** Cas. 110-V, Valparaiso. **L.P:** Dir: C. Ceruti. Dir. Tec: G. Feick. **D.PRGR:** 01.00–02.30.
88) **R. Independencia,** Cas. 132, Molina. **L.P:** Dir: R. Jara G. **D. Prgr:** 11.00–06.00. **V.** by QSL-card.
89) **R. El Cobre,** Cas. 125, Rancagua. **L.P:** Dir: Julio Romero.
90) **R. Central,** Cas. 202, San Carlos. **L.P:** Dir: Victor Busto.
91) **R. Turismo, Puerto Varas.**
92) **R. Magallanes,** Cas. 13940, Santiago.
93) **R. Arauco,** Cas. 6, Angol. **L.P:** Dir: J. Abasolo.
94) **R. Estrella del Norte,** Cas. 13, Vallenar. **L.P:** Dir: L. Morales.
95) **Trasandina,** Cas. 307, Los Andes. 96) **R. Maule,** Cas. 196, Cauquenes. 97) **R. Manuel Rodriguez,** Cas. 147, San Fernando. 98) **R. Limache,** Cas. 92, Limache.
99) **R. Sudamerica,** Cas. 1346, Santiago.
100) **R. Patricio Lynch,** Vivar 489, Iquique. **L.P:** Dir: L. Roldán.
101) **R. Soberania,** Cas. 11-D, Linares. **L.P:** Dir: R. Abasolo.
102) **R. Aconcagua,** Cas. 100, San Felipe. **L.P:** Dir: R. Grez Gonzáles.
103) **R. Chronos,** Plaza Bulnes 79, Santiago. **L.P:** Dir: C. Pacheco.
104) **R. Centenario,** Cas. 18, San Javier. **L.P:** Dir: Mario Gaete.
105) **R. Regional,** Cas. 293, Traiguen. **L.P:** Dir: Hugo Cuadra.
106) **R. Sargento Aldea,** Cas. 38, San Antonio. **L.P:** Dir: R. Filippi.
107) **R. Provincial,** Cas. 73, Putaendo.
108) **R. El Conquistador,** Alameda 580, Santiago. **L.P:** Dir: J. Molfino.
109) **R. Splendid,** Cas. 259-V, Valparaiso. **L.P:** S. Maldonado.

COLOMBIA

L.T: GMT +5 h. Pr. L: Spanish.

MINISTERIO DE COMUNICACIONES, DIVISION DE TELECOMUNICACIONES
ADDR: Bogotá – **L.P:** Dir. Gen: A. Tapias Rocha.

ASOCIACION NACIONAL DE RADIODIFUSION (ANRADIO) – **ADDR:** Av. Jimenez de Quesada 11–28, Oficina 503, Bogotá – **L.P:** Pres: A. Naranjo V.

STATIONS: Cultural st's: 1), 2), 3), 6), 87), 91), 126), 133), 156), 157), 158), 159). Other st's comm.

Short waves: Call: HJ—. *=inactive.

	Call	kc	m	kW	Name and h of tr.
1)	GO	3250	92.31	10	R. Sutatenza, Bogotá: 10.45–12.30, 19.45–03.10. Sun 16.00–02.00
2)	–	3290	91.90	25	R. Televisora Nacional, Bogotá: 12.10(Sun 14.00)–05.00
3)	GJ	4755	63.10	2.5	Reina de Colombia, Chiquinquira
4)	EF	4765	63.95	3	R.dif. Occidente, Cali: 10.45–04.35
5)	FU	4795	62.54	1	La Voz del Comercio[1], Armenia: 11.00–05.00
6)	AU	*4805	62.42	0.4	Universidad Antioquia, Medellin
7)	HC	4825	62.25	1	R. Narino, Pasto: 12.00–05.00
8)	KE	*4835	62.05	1	R. Continental[2], Bogotá
9)	GF	4845	61.92	1	R. Bucaramanga: 11.00–04.00
10)	FN	4855	61.79	1	R. Neiva[2]: 11.00–04.35
11)	FA	4865	61.66	1	La Voz de Pereira[1]: 11.00–05.00
12)	BG	*4875	61.54	1	La Voz del Norte, Cúcuta
13)	CH	*4895	61.29	5	La Voz de la Victor, Bogotá
14)	AG	4900	61.22	1	Emisora Atlantico, Barranquilla: 11.30–04.00
15)	LF	4935	60.81	1	Ondas de Ibaque: 11.00–04.00
16)	CW	4945	60.66	5	Emisora Suramerica, Bogotá: 17.00–05.00
2)	CQ	4955	60.54	50	R. Televisora Nacional, Bogotá: 12.10(Sun 14.00)–15.00
17)	AE	4965	60.42	2.5	R. Santa Fé, Bogotá: 24 h
18)	CV	4985	60.18		Transmis. Independencia, Tunja
19)	FW	5020	59.76	1	Transmis. Caldas[1], Manizales: 24 h
20)	DW	5050	59.41	5	La Voz de Medellin[1]: 11.00–05.00
1)	GC	5075	59.13	25	R. Sutatenza, Bogotá: 10.45–12.30, 19.45–03.15. Sun 16.00–02.00
1)	CG	5095	58.88	50	R. Sutatenza, Bogotá: 10.45–12.30, 19.45–03.10. Sun 16.00–02.00
21)	IQ	5955	50.38	1	La Voz del Llano, Villavicenio: 13.00–05.00
22)	CF	5960	50.34	1	La Voz de Bogotá[2]: 11.00–04.00
23)	KA	5970	50.25	1	R. Horizonte, Bogotá: 12.00–03.00
24)	LY	5980	50.16	1	R. Sintonia, Medellin: 13.00–04.00
25)	FQ	5995	50.04	1	La Voz del Pueblo, Pereira: 12.00–04.00
26)	FK	6010	49.92	1	La Voz Amiga, Pereira: 12.00–04.00
27)	CX	6020	49.83	10	La Voz de Colombia, Bogotá: 17.00–19.00, 23.00–05.00
28)	CB	6040	49.67	1	La Voz del Tolima[2], Ibaqué: 12.00–05.00
29)	EX	6055	49.55	1	R. Pacifico[1], Cali: 11.00–05.00
1)	GT	6075	49.38	10	R. Sutatenza, Bogotá: as 5075kc
30)	HJ	6085	49.30	1	Ecos de Pasto, Pasto: 12.00–05.00
31)	NT	6105	49.14	1	R. Vision[2], Medellin: 11.00–05.00
32)	HE	6115	49.06	1	R. El Sol[2], Cali: 11.00–05.00
8)	KE	6125	48.98	1	R. Continental, Bogotá: 11.00–05.00
33)	ED	6145	48.82	1	La Voz de Cauca, Popayan: 11.00–04.00
34)	KJ	6160	48.70	10	Nueva Granada[1], Bogotá: 11.00–05.00
2)	CT	6180	48.54	1	R. Televisora Nacional, Bogotá: 12.10(Sun 14.00)–05.00
35)	EZ	6195	48.43	1	La Voz de Cali[2]: 11.00–05.00

Medium Waves: Call: HJ—. °=Short Waves. *=also FM.

	Call	kc	kW		Call	kc	kW		Call	kc	kW
18)	GS	°560	10*	24)	DO	°910	25*	68)	EW	1110[3]	1*
2)	KA	°570	50*	51)	AF	920[4]	10*	16)	CO	°1130	1*
2)	HG	580	100*	8)	CS	°930[2]	10*	69)	AC	1130	1
2)	HF	590	20*	52)	GB	940	10*	70)	JC	1130[2]	1
2)	HJ	600	100*	53)	FN	950[3]	10*	71)	CL	1140[2]	2
34)	KL	°610[1]	25*	2)	HK	960	10*	1)	GJ	1150	1
36)	FD	630[2]	20*	13)	CI	°970	10*	72)	DL	1150	1
37)	KH	650	10	32)	EX	°980[2]	10*	3)	EB	°1150	1*
38)	NX	670	10	20)	DB	°990[1]	10*	73)	FI	1150[3]	1
39)	AQ	680[1]	10*	54)	AI	1010	5*	74)	GN	1160[3]	1
27)	CZ	°690	15*	55)	DQ	1010[2]	1*	75)	CK	1160	1*
2)	HI	700	10	56)	CC	1010[3]	10*	76)	BS	1160	1
40)	AN	720[4]	10*	29)	ER	°1020[1]	10*	77)	BJ	1170	1
41)	CU	730	10*	9)	GE	°1030	10*	78)	DT	1170	5*
42)	DK	750[2]	50*	57)	CJ	1040	1*	79)	FX	1180[3]	1
43)	AJ	760[1]	10	58)	DR	1040	1*	80)	JE	1180	1
44)	JX	770	30	14)	AH	1050	1*	81)	CD	1180	1
30)	HB	780[3]	10*	19)	FJ	°1060[1]	1*	82)	GK	1180[1]	10*
45)	DC	790[3]	10*	59)	AZ	1060[4]	10*	83)	CV	1190	1*
1)	CY	810	10*	17)	CG	°1070	10*	84)	AV	1200	2
46)	ED	820[3]	50*	60)	JF	1070[2]	5*	4)	EL	°1210	5
31)	DM	°830[2]	10*	61)	FM	1080[2]	10*	85)	BE	1210	1
47)	BI	840	10	62)	DZ	1080[3]	1*	86)	KR	1220	1*
48)	KC	850[3]	50*	63)	EO	1090[1]	10	26)	FF	°1230	10*
49)	EP	860	10*	64)	BC	1090[3]	10*	10)	FP	°1240[3]	1
28)	LA	°870[2]	10*	25)	FQ	°1100[2]	5*	87)	DI	1240	9*
50)	NW	880	30	65)	AT	1100[3]	1*	5)	FG	°1240[1]	5*
22)	CE	°890[2]	10*	66)	CN	1100[3]	1*	88)	KW	1250	1*
35)	EY	°900[2]	10*	67)	NH	1100	5	89)	AO	1250[4]	1*

Colombia

Call	kc	kW
90) NL	1260	1
91) NM	1260	0.5
92) NC	1260	1
93) DA	1260[1]	5*
94) FT	1270[1]	1*
95) HS	1270	1
96) NG	1270	1
97) KZ	1270	1
98) TX	1270	1
99) KN	1280	1*
100) AR	1280[4]	1
101) NB	1290	1
102) IA	1290[1]	1
103) EC	1300	1
104) BK	1300[3]	2
105) AK	1310	2.5
106) LD	1310[2]	1
107) NI	1320	1
108) NK	1320	1
11) FE	°1330[1]	10*
109) AD	1340[4]	1
110) GU	1340[3]	1*
111) HM	1340	1
112) KY	1350[3]	1*
113) DS	1350	1*
12) BF	°1350	1
7) HA	°1350	1
114) FH	1360	1
115) FR	1360	1
116) KX	1370	1*
117) EN	1370	1
118) BO	1370	1*
32) EA	°1380	1
119) GH	1380[3]	1*
120) NU	1380	5
121) LG	1380[4]	1
122) EJ	1380	1
123) AS	1390	0.75
124) FO	1400	1
125) JA	1400[3]	1*
126) KM	1400	0.25
127) NY	1400	1
128) EI	1410[2]	1
129) BH	1410	1
130) FS	1410[3]	2
6) AU	°1410	1*
131) BD	1420[2]	1
132) EK	1430[3]	1
133) KU	1430	0.25
134) AP	1430[3]	1*
15) FL	°1440	1
135) BZ	1440	1
136) EG	1450	0.75
137) GM	1450	1
138) IB	1450	1
139) HZ	1450	1
140) AL	1460	1*
141) FZ	1460	1
142) FC	1470	1*
143) BK	1480[3]	1*
144) DH	1480[2]	1
145) BP	1480	1
146) CL	1480	1
147) JW	1480	1
148) LE	1480[2]	1
149) NT	1490	1
150) AW	1490	1
151) HX	1500	1
152) GA	1500	1
153) ET	1510	1
154) JB	1520	1*
155) FV	1520[3]	1*
156) BA	1530	1*
3) GD	°1540	0.35
157) DN	1540	0.15
158) CP	1550	1
1) GP	°1560	1
159) NR	1570	0.25

[1] Belongs to R. Cadena Nacional. [2] Ci. Todelar. [3] Primera Cadena Radial Colombiana (Caracol). [4] Circuito Radial A.B.C.

Telefunken A.G, Germany delivered one 20kW, two 50kW sw-tr's; 1×20, 1×50, 1×100kW mw-tr's. studio equipment. (R. Nacional).

RADIO CADENA NACIONAL (R.C.N.)

Addr: Apt. Aéreo 1244, Medellin. **Te:** 28642. **L.P:** Pres: L. Alberto Villegas M. Dir. Tec: E. Ramirez Gaviria. Secr: A. Jaramillo Osorio – All st's operate 11.00–05.00 – **ANN:** "Esta es R. Cadena Nacional".

CARACOL – PRIMERA CADENA RADIAL COLOMBIANA

Addr: Calle 19, 8-48, Bogotá. **Cable:** Caracol. **Te:** 436-800. **L.P:** Pres: F. Londoño H.

CIRCUITO RADIAL ABC, S.A.

Addr. Apt. Aéreo 1771, Apt. Nal. 206, Cartagena. **Cable:** "Radial". **Te:** 13-004. **L.P:** Mgr: R. Fuentes L. Dir. Tec: C. Estevez L. **D.PRGR:** 10.45–05.00. **N:** 12.10, 17.00, 24.00. **V.** by letter.

Short Waves:

1) Escuelas Radiofonicas, Apt. Aéreo 1770, Apt. Nac. 3262, Bogotá. **Cable:** Radiofonicas. **Te:** 420543. **L.P:** Dir. Gen: J. J. Salcedo G. Mgr: F. Sarmiento O. Dir. Tec: L. M. Pick. **D.Prgr:** 810kc: W 11.30–04.00, Sun 12.45–03.00; 1150kc: W 10.45–0310., Sun 11.45–18.00. **N.** (W only): 12.00, 17.00 (1150kc only), 23.20, 01.00 (not 1150kc), 03.00. **Escuelas Radiofonicas:** 11.00–12.00 (repeats: 20.00, 22.00, 00.00) on 5095/6075kc (1st course), on 3250/5075kc (2nd course). **Ann:** "Por la Fe y la Cultura, bases del verdadero progreso, transmite R. Sutatenza, del Servicio de Radiodiff. de Acción Cultural Popular, desde Sutatenza, en Boyaca, República de Colombia". **V.** by QSL-card.

2) Transversal 17 No. 25-65, Bogotá. **Te:** 414070. **V.** by QSL-card or letter – 3) Chiquinquira.

4) Carrera la 16-89, Cali. **Ann:** "Transmiten desde Cali, Sultana del Valle las emisoras R.C.O, R. Melodia, por sus emisoras 1210kc. onda larga, 4765kc onda corta, banda internacional de los 60 metros."

5) Armenia – 6) Carrera 43 No. 47-96, Medellin.

7) Carrera 28 Ca. 17 Esquina, Pasto. **L.P:** Dir. Gen: M. Julian S. **D.Prgr: N:** 12.00, 18.00, 24.00, 02.00, 03.00. **Ann:** "Esta es R. Nariño, emisora filial de R.C.N. Radio Cadena Nacional, la mas vasta red de radiodifusion en Colombia". **V.** by QSL-card.

8) Apt. Aéreo 53-42. Bogotá. **V.** by letter.

9) Apt. Aéreo 572, Apt. Nac. 47, Bycaramanga. **Te:** 5406. **Telex:** 04886. **L.P:** Dir. Gen: P. Sorzano B. Dir. Tec: G. Sorzano J. **D.Prgr: N:** 12.00, 17.00, 24.00 – **English:** W 03.30–04.00. **Ann:** "Estas son las emisoras de R. Bucaramanga, transmitiendo en sus freq's H.J.G.F. onda corta 4845kc, H.J.G.E. onda larga 1130kc y frecuencia modulada 96mc, desde Bucaramanga capital del departemento de Santander en la República de Colombia". **E:** "This is R. Bucaramanga transmitting over the following freq's ... from Bucaramanga, Colombia in So. America". **V.** by QSL-card. **Re.** in Sp, E.

10) Ca. 7a No. 5-69, Neiva. **V.** by QSL-card.

11) Ca. 18 No. 8-54, Pereira – 12) Ca. 9a No. 5-32, Cúcuta.

13) Carrera 9a No. 11-35, Bogotá. **L.P:** Dir. A. Gaitan.

14) Paseo Bolivar, Carrera Cuartel, Barranquilla. **V.** by QSL-card.

15) Edif. Raad, Ibague. **L.P:** Dir: L. E. Martinez R.

16) Ca. 14 No. 14-61, Bogotá. **Te:** 416-116. **Cable:** Emisora. **L.P:** Dir. Gen: J. Molina R. St. Dir: F. Miguel Diaz R. Dir. Tec: A. Estevez. **D.Prgr:** 24 h. **N:** every h. **German:** Mo 02.00–03.00. **Italian:** Sun 17.30. **ANN:** "Desde Bogotá, Colombia transmite Emisora Suramerica, una R. "Satelite" de R. Cadena Nacional. La mayor organizacion Radial de Colombia. Estaciones HJCO, Onda Larga 1130kc, Onda Corta HJCW 4945kc, FM 90.1". **V.** by QSL-card.

17) Apt. Aéreo 9339, Bogotá. **Te:** 420-910. **Cable:** "Radio Santa Fe". **Telex:** 044-778. **L.P:** Dir. Gen, Dir. Tec: H. Bernal A. **D.Prgr:** every 15 min. and at 10.00, 17.30, 23.30, 04.15. **Ann:** "Aqui y en todas partes R. Santa Fé 1070 y 4965kc en Bogotá, Colombia". **FM:** HJKI 99.5Mc. **V.** by letter.

18) Tunja. **L.P:** Mgr: L. Lopez R.

19) Apt. Aéreo 244, Manizales. **Cable:** Transmisora. **Te:** 5549. **L.P:** Dir. Gen: E. Bermudez. R. Mgr: I. Escobar U. Dir. Tec: D. E. Martinez. Dir. Foreign Rel: H. Villegas. **D.Prgr: N:** Every h 12.00–01.00. **Ann:** "Transmisora Caldas en Manizales Colombia, HJFJ y HJFW onda larga y corta, Filial de R. Cadena Nacional, Transmisora Caldas "la voz que se escucha en toda la Nacion". **Int-Sig:** Organ melody every 15 min. **F.Pl:** TV st. **V.** by QSL-letter. **FM:** 90.5Mc 0.25kW

20) Apt. Aéreo 1244, Medellin. **Te:** 28642. **L.P:** Mgr: R. Jaramillo I. Dir. Tec: E. Ramirez C. **D.Prgr: N:** 12.00, 17.30, 00.30, 04.45. **Ann:** "Esta es R. Cadena Nacional transmitiendo por su emisora La Voz de Medellin 990kc". **V.** by QSL-card. **Re.** in F, E, Sp.

21) Villavicenio – 22) Carrera 6a No. 14-88, Bogotá. **V.** by letter.

23) Horizonte – 24) Carrera 47 (Sucre) 53-29, Medellin. **V.** by QSL-card or letter.

25) Apt. 244, Pereira. **L.P:** Dir: J. Mejia D. **V.** by letter.

26) Apt. Aéreo 89, Pereira. **L.P:** Dir: O. Giraldo. **Ann:** "En 1230kc la esucha Pereira y Colombia, en 6010kc la esucha el mundo. Esta es La Voz Amiga, su amiga y su emisora". **V.** by letter.

27) Apt. Aéreo 38-55, Nac. 26-65, Bogotá. **Te:** 422344. **L.P:** Mgr: J. Munera L. Dir. Tec: R. Gomez S. **D. Prgr:** 11.00–05.00. **N:** 11.30, 17.30, 03.00. **Ann:** "Aqui Bogotá, transmiten las Emisoras de La Voz de Colombia, en sus frequencias de... afiliada a Federradio, Federacion Colombiana de Radiodifusion. Si es un buen programa, es por La Voz de Colombia 690 en su radio". **V.** by QSL-card or letter.

28) Apt. Aéreo 604, Ibague. **V.** by QSL-card or letter.

29) Apt. Aéreo 2180, Cali. **V.** by letter.

30) Apt. Aéreo 375, Pasto, Nariño. **L.P:** Dir: A. Gonzales R. **V.** Very much interested in receiving taped re. if possible 15 mins. of recording time and a greeting in Spanish. These will be played at 04.45–05.00. All taped re. will receive picture post cards of Pasto (Capital of Nariño).

31) Apt. Aéreo 31-63, Medellin. **Te:** 80237. **L.P:** Dir. Gen: J. Tobon de la Roche. Dir. Tec: A. Toro P. **D.Prgr: N:** 12.00, 17.00, 23.45, 03.00. **Ann:** "R. Vision, de Medellin, Emisoras del Circuito Todelar de Colombia lo moderno en radio". **V.** by letter. **F.Pl:** FM and 11 st's

32) Carrera 9a, 10-45, Apt. Aéreo 1972, Cali. **L.P:** Dir: F. Franco Garcia. **Ann:** "Esta es R. El Sol, 980kc, canal preferencial, onda corta 6115kc, banda internacional de 49 metros; del Circuito Todelar de Colombia, R. El Sol, de Cali, en dos frecuencias para cubrir toda la república". **V.** by letter.

33) Apt. Aéreo 535, Popayan. **V.** by letter.

34) Carrera 15 No. 13-47, Bogotá. **Te:** 344805. **Cable:** "Nuevagranada". **L.P:** Dir. Gen: L. Betancourt T. St. Mgr: E. Ramirez G. **D.Prgr:** 24 h **N:** 12.00, 17.30, 24.00, 04.45. **Ann:** "Transmite "Nueva Granada" una emisora de R. Cadena Nacional HJKL onda larga 610kc, HJKJ onda corta 6160kc desde Bogotá, República de Colombia". **V.** by letter. **Re.** in Sp, E.

35) Apt. Aéreo 1972, Ca. 11 No. 9-20, Cali. **Te:** 81350. **Cable:** Vozcali. **L.P:** Dir. Gen: B. Tobon de la Roche. St. Mgr: J. M. Lopez. Dir. Tec: L. Carlos E. **D.Prgr: N:** 12.00, 17.15, 00.00, 03.00. **V.** by letter.

Medium Waves:

36) **R. Manizales,** Apt. Aéreo 67, Manizales. **Te:** 1395. **L.P:** Dir. Gen: A. Cadavia, Dir. Tec: L. Fernando H: 11.00–05.00 **N:** 12.00, 17.30, 24.00, 03.00. **V.** by letter.

37) **R. Renacimiento.** Bogotá. **L.P:** Mgr: V. Nieto. **V.** by letter.

38) **La Voz de Bello,** Bello.

39) **R. Miramar,** Apt. Aéreo 246, Cartagena. **V.** by letter.

40) **Emis. Unidas,** Apt. Aéreo 154, Barranquilla. **V.** by QSL-card.

41) **R. Tricolor,** Ca. 24 No. 6-09, Bogotá.

42) **La Voz de Antioquia,** Maracaibo 46-80, Medellin.

43) **La Voz de Barranquilla,** Barranquilla.

44) **Emis. Monserrate,** Carrera 8A 17-33, Bogotá. **Te:** 344-569. Cable: Emonse. **L.P:** Pres: J. E. Sanchez V. St. Mgr. & Dir. Tec: L. A. Rocha, J. Espinel: 11.30–05.30. **N:** 17.55, 00.55, 04.55.

45) **Ecos de la Montaña,** Ca. 53, 52A-42, Medellin.

46) **La Voz del Rio Cauca,** Carrera 18-39, Cali.

47) **Ondas del Caribe,** Sta. Marta – 48) **Emisora Nuevo Mundo,** Ca. 19, 9-48, Bogotá – 49) **Voces de Occidente,** Carrera 14, 2-31, Buga – 50) **La Voz de los Comuneros,** Bucaramanga.

51) **Emisora Fuentes,** Apt. Aéreo 771, Nac. 206, Cartagena.

52) **R. Eco,** Cali – **L.P:** Mgr: H. Herrera B – 53) **La Voz del Cafe,** Carrera 8a. 15-47, Pereira – 54) **R. Kalamary,** Barranquilla – **L.P:** Mgr: E. Ariza – 55) **Emisora Claridad,** Av. 10 de Mayo 49-53, Medellin.

56) **Emisora Mil Veinte,** Ca. 13 No. 8-75, Bogotá.

57) **R. Progreso,** Ca. 13 No. 14-47, Bogotá – 58) **La Voz del Triunfo,** Ca. 51 (Boyaca), 51-31, Bogotá – 59) **La Voz del Sinu,** Monteria.

60) **R. Musical,** Ca. 11 No. 9-20, Cali – **L.P:** Mgr: B. Tobon.

61) **La Voz de Armenia,** Carrera 16 No. 19-28, Armenia. **Cable:** Vozarmenia – **L.P:** Dir. Gen: J. M. Toro E. **N:** 12.30, 17.00, 24.00.

62) **R. Reloj,** Ca. 53 No. 46-80, Medellin. **V.** by letter.

63) **Ondas del Valle,** Carrera 5a No. 12-23, 3° Piso, Cartago.

64) **La Voz de Cucuta,** Av. 5a, 10-11, Cúcuta – 65) **R. Reloj,** Carrera 42 No. 23-46, Barranquilla – 66) **R. Reloj,** Ca. 19 No. 8-48, Bogotá. 67) **Ondas del Rio,** Magangué – 68) **R. Reloj,** Carrera 1a, 18-39, Cali. 69) **Emisora Riomar,** Ca. 32 No. 42-19, Barranquilla. 70) **R. Cartago,** Carrera 4a, 10-62, Cartago. 71) **R. Girardot,** Ca. 8a, 10-19, 3° Piso, Girardót. 72) **R. Cristal,** Medellin. **L.P:** Dir: J. Zuleta F. 73) **Pregones del Quindio,** Ca. 19 No. 14–42, Armenia – 74) **R. Barrancabermaja,** Barrancabermaja – 75) **El Mundo en Bogotá,** Carrera 7a, 17-14, 3° Piso, Bogotá – 76) **La Voz de Sta. Marta,** Sta. Marta. 77) **La Voz de Santa Maria,** Santa Maria. 78) **R. Nutibara,** Edif. Alejandro Angel, Medellin. **Te:** 14675. **L.P:** Dir. Gen: J. Garcia Lobo. Dir. Tec: H. Cárdeñas: 11.30–05.00. **N:** 11.45, 13.00 and every h on the h until 03.00 – **Ann:** "Transmite R. Nutibara, Estacion HJDT 1170kc onda larga, HKMO 96.9Mc Frecuencia Modulada, Emis. que funciona en Medellin República de Colombia" – 79) **La Voz del Ruiz,** Manizales – **L.P:** Mgr: F. Londoño. 80) **R. Villa de Cespedes,** Tulua – 81) **R. Nueva Epoca,** Fusagasuga. 82) **R. Santander,** Apt. Aéreo 1100, Bucaramanga. **L.P:** Dir. Gen: L. A. Villegas M. **D.Prgr:** 24 h. **V.** by letter. Records accepted. 83) **R. Popular,** Carrera 9a, 13-42, Bogotá – 84) **R. Cordobesa,** Monteria – 85) **Ecos de Ocaña,** Ocaña – 86) **R. Industrial,** Bogotá – 87) **Pontificia Bolivariana,** Apt. Aéreo 1178, Medellin – 88) **R. Modelo,** Bogotá. 89) **R. Vigia,** Apt. Aéreo 154, Nac. 324, Barranquilla. 90) **R. Panamericana,** Villamaria – 91) **Emis. Cultural Bolivar,** Ipiales. 92) **Ondas del Nevado,** Ibague – 93) **Emis. Siglo XX,** Carrear 51, (Bolivar), 59-63, Medellin – 94) **Ecos del Combeima,** Ibague – 95) **Voz del Rio Zulia,** El Zulia – 96) **R. Palmira,** Palmira – 97) **Onda Libre,** Pereira. 98) **R. Compas,** Apt. Aéreo 907, Bucaramanga. **Te:** 3271. **L.P:** Dir. Gen: G. D. 'la Rotta G. Dir. Tec: H. Vargas M. **D.Prgr:** 10.30–05.00. **N:** 11.50, 17.50, 23.50 and short N every h on the h 10.00–05.00. **Ann:** "Desde el drive in-las Vegas, en Giron Santander, transmite R. Compas, estacion colombiana, HJTX, 1270kc una emisora joven para la gente joven de todas la edades". **V.** by letter. Records accepted. 99) **Emis. Metropolitana,** Ca. 24 No. 6-09, Bogotá. 100) **La Voz de Cartagena,** Apt. Aéreo 246, Cartagena – 101) **R. Guia,** Bucaramanga – 102) **R. Villavicencio,** Ca. 20 No. 21-62, Villavicencio. 103) **R. Libertador,** Carrera 3a, 15-80, Cali – 104) **R. Valledupar,** Valledupar – 105) **La Voz de la Patria,** Apt. Aéreo 231, Nac. 621, Barranquilla – 106) **R. San. Eugenio,** Carrera 15 No. 15-32, Santa Rosa de Cabal – 107) **Emis. de Aralaya,** Piedecusta – 108) **Emis. IRC,** Palmira – 109) **R. Vigia,** Apt. Aéreo 1771, Nac. 206, Cartagena. 110) **Ondas del Fonce,** San Gil – 111) **Voz de Calarca,** Calarca. 112) **Ondas del Puerto,** Ca. 14 No. 11-19, Girardot – 113) **La Voz de la Americas,** Carrera 51 (Bolivar), 51-40, Medellin. 114) **La Voz de Anserma,** Anserma. **L.P:** Mgr: H. Marin V. 115) **Ondas del Huila,** Banco Comercio, Neiva. 116) **La Voz de Cundinamarca,** Bogotá. **L.P:** Mgr: L. Rodriguez. 117) **R. Cultura,** Carrera 7a, 16-42, Cali. **L.P:** Dir: A. Mesa. 118) **R. Piloto,** Barranquilla. **L.P:** Mgr: P. J. Gañizares. 119) **R. del Comercio,** Ca. 35 No. 12-66, Bucaramanga. 120) **R. Sta. Barbara,** Sta. Barbara. **L.P:** St. Mgr: O. Heñao H. **N:** 12.00, 18.00, 24.00. **V.** by letter and pennant. 121) **La Voz de la Dorada,** Carrera 3a No. 11-25, La Dorada. 122) **Armonias del Palmar,** Carrera 29 No. 32-90, Palmira. **Te:** 3344. **L.P:** Dir. Gen: J. Bejarano D. Dir. Tec: D. Benitez V. 123) **Emis. Variedades,** Ca. 35 No. 35-106, Barranquilla. 124) **R. Luz,** Carrera 22 No. 16-19, Manizales. 125) **R. Buenaventura,** Ca. 5a, Carrera 2a, Buenaventura. 126) **Emis. Mariana Bogotá,** Carrera 7 No. 6-10, Bogotá. **Te:** 462712. **L.P:** Dir. Gen: R. P. Manuel Cadierno. Dir. Tec: P. Sanchez. **D.Prgr:** 11.00–03.00. **English (L.L.):** 11.30, 12.30, 13.30. 127) **R. Pipaton,** Barrancabermeja – 128) **Emis. Guadalajara,** Carrera 5a, 8-53, Buga – 129) **R. Magdalena,** Ca. 7a, 5-54, Santa Maria. 130) **Ondas del Guali,** Honda – 131) **R. Gualmaral,** Apt. 5-54, Cúcuta. 132) **R. Tulua,** Carrera 26, Ca. 26 y 27, Tulna. 133) **La Voz de Maria,** Bogotá – 134) **R. Marina,** Cartagena. 135) **Ondas de Riohacha,** Riohacha – 136) **R. Belacazar,** Ca. 5a, 5-81, Popayán3 – 17) **R. Sogamoso,** Sogamoso. **L.P:** Dir: J. C. Medina S. 138) **Voz del Caqueta,** Florencia – 139) **Emis. Mariana,** Pasto. 140) **R. Sincelejo,** Plaza Olaya Herrera, Sincelejo. 141) **La Voz del Espinal,** Espinal – **L.P:** Dir: A. Useche B. 142) **R. Centinela,** Carrera 8a, Edif. Algira, Pereira. 143) **La Voz de la Gran Colombia,** Villa del Rosario. 144) **R. Quibdo,** Quibdo – 145) **R. Pamplona,** Pamplona – 146) **R. Garzón,** Ca. 7a con Carrera 8a, Garzón – 147) **R. Festival,** Soacha. 148) **R. Armero,** Armero. **L.P:** Dir: R. Andrade. 149) **Voz del Paraiso,** Cerrito – 150) **Voz del Monteria,** Monteria. 151) **Voz Panamericana,** Floridablanca – 152) **R. Boyaca,** Apt. 96, Tunja. **Te:** 3832. **L.P:** Dir: H. Camargo F. Dir. Tec: J. Rios: 11.00–02.00. **V.** by letter – 153) **R. Bolivar,** Av. 8a, 10-110, Cali. 154) **R. Sevilla,** Carrera 50, Ca. 49 y 50, Sevilla – 155) **La Voz del Litoral,** Ca. 37 No. 43-80, Barranquilla – 156) **La Voz de Pamplona,** Pamplona, N. de Santander – 157) **Liceo Departamental,** Sonson. 158) **R. Parroquial,** Nemocón – 159) **R. Copacabana,** Copacabana.

CARACOL

Primera Cadena Radial Colombiana

8 emisoras propias, 3 de ellas con 50 kilovatios, 16 afiliadas. Cubrimos todo el territorio colombiano y gran parte de los paises vecinos.

Cultura y diversión para millares de oyentes.

ECUADOR

L.T: GMT ÷ 5 h – **Pr.L:** Spanish, Quechua.

INSPECCION DE RADIO, Ministerio de Publicas Direccion Tecnica – **ADDR:** Benalcazar 698, Quito. **Cable:** Radionacional. **Te:** 11019 – **L.P:** Dir: A. Zabala.

ASOCIACION ECUATORIANA DE RADIODIFUSORAS **ADDR:** Apt. 289, Quito. **Cable:** AER. **Te:** 10669 – **L.P:** Pres: G. Vergara Jimenez.

STATIONS: Short Waves: Call: HC----.

	Call	kc	m	kW	Name and h of tr.
1)	RO1	2485	120.7	0.2	R. Otavalo: 12.00–18.00, 23.00–03.00
2)	LP3	3215	93.30	0.25	La Voz de el Oro, Pasaje: 12.00–14.00, 20.00–23.00, 00.00–05.00
3)	JC1	3240	92.59	0.2	R. Atuntaqui: 16.00–03.30
4)	LM3	3245	92.45	0.25	La Voz de Pasaje: 12.00–13.00, 20.00–23.00, 01.00–04.00
5)	VU2	3275	91.60	0.2	La Voz de Urdaneta, Ricaurte: 10.00–07.00
6)	DR4	3355	89.42	0.2	R. Miramar, Bahia: 23.00–03.00
7)	VE4	3390	88.50		La Voz de Esmeraldas: 10.00–13.00, 23.00–06.00
8)	SG4	3505	85.59	0.22	La Voz del Valle, Portoviejo: 11.00–13.00, 15.00–04.00
9)	NL2	3510	85.47	0.2	La Voz del Campesino, Naranjal
10)	KD5	3515	85.35	0.2	R. Centro de Gualaceo: 23.00–03.00
11)	YC4	3520	85.23	0.2	R. Escuelas Radiales, Campamento Lita: 23.00–03.00
12)	OT1	3545	84.63	0.2	R. Zaracay, Sto. Domingo Cds: 11.00–14.00, 23.00–05.00
13)	HG2	3570	81.24	0.2	R. Central, Vinces: 23.00–03.00
14)	GS6	3615	86.00	0.4	R. Sideral, Salcedo: 10.00–13.00, 21.00–03.00
15)	EF2	3620	82.87	0.1	El Sagrario, Guayaquil: 12.00–13.00
16)	OS4	3630	82.64	0.25	La Voz del Carrizal, Calceta: 11.30–04.00
17)	MR1	3640	82.41	0.5	R. Cayambe: 11.00–13.00, 23.00–04.00
18)	JT1	3680	81.48		R. Tulcan: 13.00–03.00
19)	IE1	3695	80.95		R. Cotacachi: 23.00–03.00
20)	GB4	3720	80.65	0.35	R. Nac. Espejo, Esmeraldas: 23.00–03.00
22)	JR6	3745	79.65	0.2	La Voz del Colegio Mera, Ambato: 17.30–19.30, 00.00–02.00
21)	BH6	3755	79.90		R. Latacunga: 15.00–19.30, 20.30–04.00
23)	WN1	3835	78.20	0.35	La Voz del Triunfo, Sto. Domingo Cds: 23.00–03.00
24)	DY4	3945	76.05	0.25	R. Iris, Esmeraldas: 11.00–14.00, 22.00–06.00
25)	PZ1	3950	79.95	0.3	R. Rumichaca, Tulcan: 11.30–15.15, 16.45–04.00
26)	LR5	3950	75.95	0.2	La Voz de Alausi: 23.00–03.00
27)	JJ2	3960	75.76	0.2	R. Ecos del Agro, Quevedo: 23.00–03.00
28)	JH1	3965	75.67	0.3	R. Turismo, Otavalo: 23.00–03.00
29)	SN6	3975	75.47	0.6	R. Sira, Ambato: 23.00–03.00
30)	OF4	3980	75.38	0.4	La Voz de Chone: 11.30–05.00
31)	ER5	3985	75.28	1	Escuelas Radiofonicas Populares, Riobamba: 10.30–12.00, 16.00–19.00, 21.00–02.00
32)	JA5	3990	75.19	0.5	La Voz del Rio Tarqui, Cuenca: 11.00–04.00
33)	AO5	4000	75.00	0.3	La Voz de Tomebamba, Cuenca: 11.45–04.00
35)	AS4	4730	63.42	0.5	La Voz de los Caras, Bahia: 23.00–05.00
34)	BJ2	4750	63.96	0.25	R. El Mundo, Guayaquil: 13.00–19.30, 21.45–04.00
36)	LJ6	4755	63.10	0.2	La Voz de Bolivar, Guaranda: 02.00–04.00
37)	AJ2	4765	62.95	1	R.Dif. del Ecuador, Guayaquil

Ecuador

Call	kc	m	kW	Name and h of tr.
38) MX4	4770	62.89	0.4	R. Cenit, Portoviejo: 11.00–13.00, 15.00–04.00
39) EH3	4775	62.84	0.5	R. El Progreso, Loja: 11.00–14.00, 17.00–20.00, 24.00–03.00
40) MQ1	4780	62.76	1	R. Atahualpa, Quito: 10.45–04.35
41) HA2	4790	62.63	0.25	R. Ondas Quevedeñas, Quevedo: 23.00–03.00
42) SV5	4800	62.50	0.25	R. Amazonas, Cuenca: 11.00–20.00, 23.00–04.00
43) LS3	4810	62.37	0.2	R. Coro Santa Cecilia, Loja: 23.00–03.00
44) FA4	4815	62.31	0.3	La Voz de Manabi, Portoviejo: 10.30–04.00
45) ET2	4825	63.42	0.3	R. El Telegrafo, Guayaquil: 11.00–04.00
46) JS1	4830	62.10	0.5	Ondas del Angel, El Angel: *15.00–19.00, 21.30–04.30*
47) AP4	4835	62.05		La Voz del Valle, Portoviejo
48) RM3	4845	61.92	0.38	R. Cultural Machala: 11.00–19.00, 00.00–05.00
49) CV3	4850	61.86	0.25	Ondas del Zamora, Loja: 23.00–03.00
50) MA1	4855	61.79	0.35	R. Amazonas, Quito
51) JC3	4860	61.73	0.25	R. 18 de Noviembre, Loja: 23.00–03.00
52) CD1	4865	61.66	1	R. Luz de America, Quito: 11.00–14.30, 17.00 20.00, 22.00–04.00
53) MZ6	4875	61.54	0.2	La Voz del Rio Chimbo, San Jose de Chimbo: 11.00–05.00
54) WE1	4880	61.48		R. Nac. Espejo, Quito: 24 h.
55) FM6	4905	61.16	0.45	R. Proclama de Bolivar, Asuncion: 23.00–03.00
56) AR1	4910	61.10	0.1	La Voz de Montúfar, San Gabriel
57) MJ1	4910	61.10	0.3	Emis. Gran Colombia, Quito: 11.00–06.00
58) MP2	4920	60.98	0.2	La Voz de la Peninsula, La Libertad: 23.00–03.00
59) JX6	4920	60.98	0.1	R. *Cultural Religiosa, Baños*: 23.00–03.00
60) QR1	4923	60.94	0.5	R. Quito: 24 h.
61) CR1	4930	60.85	0.25/1	R. Casa de la Cultura, Quito: 11.30–13.00, 17.00–19.00, 00.00–03.15
62) XZ1	4940	60.73	10	R. Nacional del Ecuador, Quito: 11.00–15.00, 16.30–19.30, 22.30–05.00
63) PH5	4960	60.48	1	R. Ruta, Riobamba: 23.00–03.00
64) GH1	4970	60.36	5	R. Tarqui: 10.45–04.00
65) JC5	4980	60.24	0.3	Ondas Azuayas, Cuenca: 10.45–05.00
66) SJ1	4990	60.12	1	R. Javier, Quito: 11.00–15.00, 16.45–17.30, 22.00–03.00
67) RP1	5015	59.82	0.5	R. Católica, Quito: 10.35–15.00, 17.00–18.00, 22.00–03.00
68) OB5	5025	59.70	0.2	Ondas Azules, Cuenca: 11.30–04.00
69) PS5	5030	59.64	0.5	Ondas Cañaris, Azogues: 11.00–14.00, 15.45–19.00, 21.45–03.45
70) CU5	5035	59.58		La Voz de Azogues
71) EA5	5045	59.46	0.25	R. Roxi, Riobamba: 23.00–03.00
72) RI1	5055	59.36	0.22	Centro Radiofonico de Imbabura, Ibarra: 23.00–03.00
73) CV5	5950	50.42	0.3	La Voz de los Cuatro Rios, Cuenca: 11.00–05.00
74) DF1	5955	50.38	0.6	La Voz del Norte, Ibarra: 23.00–03.00
75) TR1	5960	50.34	0.75	R. Equinoccial, Ibarra: 23.00–03.00
76) GE5	5965	50.29	0.2	R. Mundial, Riobamba: 23.00–03.00
77) MH6	5970	50.25	0.5	Org. Radiofonica del Cotopaxi, Latacunga: 12.00–15.00, 16.00–20.00, 22.00–04.30
78) AH3	5985	50.13	0.4	R. El Trebol, Zaruma: 10.00–03.00
79) EB4	6015	49.88	0.5	R. Manta: 11.30–14.00, 16.00–19.00, 23.00–04.00
80) RQ2	6030	49.75	0.3	La Voz del Tropico, Quevedo: 23.00–03.00
81) NK3	6035	49.71	0.5	R. Cariamanga: 23.00–03.00
82) JB	6050	49.50	30	La Voz de los Andes, Quito
83) AC1	6060	49.50	0.75	La Voz de la Democracia, Quito
84) EM1	6065	49.46	0.2	Ondas Carchenses, Tulcan
85) IW5	6070	49.42	0.5	R. El Mercurio, Cuenca: 23.00–03.00
86) DG2	6080	49.34		R. Bolivar, Guayaquil: 12.00–05.00
87) VM6	6090	49.26	0.5	R. Once de Noviembre, Latacunga: 12.00–20.50
88) PT5	6095	49.22	0.3	La Voz del Perpetuo Socorro, Cuenca: 23.00–03.00
89) SP4	6100	49.18	1	Ondas del Volante, Portoviejo: 10.30–13.00, 15.00–04.00
90) VC3	6105	49.14	0.25	R. Centinela del Sur, Loja: 23.00–03.00
91) RL2	6120	49.02		R. Quinta Piedad, Guayaquil: 11.00–04.00
92) FB2	6130	48.94	1.5	R. Nacional Condor, Guayaquil: 09.00–06.00
93) OV5	6140	48.86	1	Ondas del Volante, Azogues: 23.00–03.00
94) LT4	6155	48.74	0.3	R. Costa Azul, Portoviejo: 23.00–03.00
95) PJ2	6170	48.62	0.25	R. Fluminense, Babahoyo: 23.00–03.00
96) RT6	6180	48.54	0.45	R. Paz y Bien, Ambato: 11.00–15.00, 17.00–19.00, 22.00–02.00
97) XX2	6185	48.50	0.2	La Voz de Vinces: 23.00–03.00
98) EH6	6195	48.43	1.5	R. Cosmopolita, Ambato: 12.00–03.30
82) JB	9745	30.78	1/30	La Voz de los Andes, Quito
99) VP2	11765	25.50	3	R. Atalaya, Guayaquil: 11.00–05.00
82) JB	11915	25.18	30	La Voz de los Andes, Quito
82) JB	15115	19.85	1/30	La Voz de los Andes, Quito
82) JB	17890	16.77	30	La Voz de los Andes, Quito

Medium Wave: Call: HC---. °=Short Wave. *=inactive.

Call	kc	kW	Call	kc	kW	Call	kc	kW
100) OG2	560	0.5	135) DE2	945	0.2	169) MV5	1235	0.2
61) BX2	°588	0.2	136) JM1	950	0.5	22) CM6	°1240	1
101) SP1	595	0.2	137) MC2	955	0.2	170) FA1	1245	0.35
102) PC2	610	0.5	138) NC1	960	0.4	171) RB2	1250	0.1
103) VM1	*615	0.4	139) OT1	965	0.2	151) BO6	1260	0.35
104) FM6	°625	0.45	140) MB1	970	0.35	65) JE5	1265	0.25
105) CS2	630	0.35	141) AW2	973	0.2	172) UM2	1270	0.25
50) XY1	°640	10	142) JI5	980	0.3	83) AB1	°1280	0.35
106) MU2	655	1	64) GH1	°990	0.25	173) MS1	1295	0.3
66) SJ1	°670	1	143) RM2	995	1	174) DC2	1300	0.25
107) PV2	675		144) RV5	1005	1.5	54) GB1	°1310	0.4
108) RS2	693	0.3	145) LV1	1020	0.25	175) JD6	1320	0.25
82) JB1	°700	30	146) TO5	1027		176) PX1	1335	0.3
47) AM4	°715	1	147) CW1	1040	0.3	99) AU2	°1350	0.25
109) AF2	725		148) PS5	1040	0.5	96) PB6	°1355	0.4
110) IC1	730	0.4	149) BG1	1045		60) RQ1	°1360	0.5
111) SE4	735	0.25	37) AJ2	°1050	1	177) HA2	1295	0.3
112) CT2	750		150) AC6	1060	0.3	178) PV6	1380	0.3
82) JB	°760	0.5	152) RV3	*1065*	*1.5*	179) JN1	*1385*	0.3
113) MF2	770	1	153) VP1	1070	0.5	73) CV5	°1390	0.3
114) RG4	780	0.3	154) FD2	1080	0.3	7) VE4	°1395	
115) AA1	785	0.2	155) MG1	1090	0.35	180) FL2	1400	0.2
116) FV1	805	0.5	71) ED5	°1090	0.25	181) BS4	1400	0.3
117) VT2	810	0.2	15) GB6	1100	1	182) GB6	1410	0.2
118) AV3	815	0.25	50) AP1	°1111	0.35	57) MJ1	°1410	0.3
119) GB2	825	2	156) LA2	1115	0.2	183) MB2	1425	0.25
52) CD1	°835	1	157) GM7	1120		61) BX1	°1430	0.25
120) ET6	845	0.8	33) AO5	°1120	0.25	63) SC5	°1445	1
121) AJ2	850	0.2	158) GY6	1125	0.5	184) US1	1440	0.4
122) AG1	855	1	159) AP5	1130	0.35	185) AQ2	1450	0.25
123) AS6	865	0.8	92) FB2	°1140	0.25	186) GM1	1460	0.25
124) NY2	870	1	160) RK1	1145	0.4	187) ET4	1465	0.2
67) RP1	°880	0.5	161) CZ5	1150	0.3	188) FP1	1470	0.3
125) LG3	885	0.2	45) ET2	°1160	0.25	189) EJ3	1475	0.22
126) TL5	890		162) VJ5	1170	0.25	190) CV6	1480	0.3
127) GC2	895	0.3	163) AP5	1175	0.35	40) LC1	°1490	1
128) AE1	900	0.2	164) LR1	1180	0.4	191) WN5	1496	0.4
129) EV5	°900	0.2	165) BE2	1190	0.3	192) EW2	1510	0.4
76) GR5	°910	0.2	166) CS1	1195		193) VR1	1520	0.3
130) RU3	914	0.2	167) GU1	1210	0.2	77) MH6	°1535	0.5
131) CM1	920	0.5	168) SF5	1215	0.2	98) EJ6	°1550	0.5
132) VL2	925	0.3	34) BJ2	°1220	0.25	194) DJ1	1545	
133) UE5	935		29) JM6	°1225	0.6	195) EG1	1570	0.5
134) MT1	940							

Continental Electronics, USA, delivered 5/10kW mw-tr. (Quito).

Short Waves:

1) Otavalo – **L.P:** Dir: C. Chicaiza.
2) Pasaje – **L.P:** Dir: L. Peralta Palacios.
3) Atuntaqui – **L.P:** Dir: J. Cadena.
4) Pasaje – 5) Ricaurte – **L.P:** Dir: C. Casal Mendoza.
6) Bahia – 7) Esmeraldas – 8) Portoviejo – 9) Naranjal – 10) Guaiaceo – 11) Campamento Lita – 12) Sto. Domingo de los Colorados. 13) Malecon Eloy Alfaro y Olmedo, Bahos Hotel, Vinces. Cable: Emicentral – **D.Prgr: N:** 01.00–03.00 – **Ann:** "Esta es organizacion R.fonica de Emis. "Central" transmitiendo desde Vinces, Republica del Ecuador, País Amazonico" – **V.** by letter.
14) Salcedo – **L.P:** Dir: Gonzalo Salazar – 15) Apt. 3958, Guayaquil. **Te:** 12865. **L.P:** Dir: E. Fiallos. **V.** by letter.
16) Calceta. **L.P:** Dir: R. Navarrete – 17) Cayambe. **L.P:** Dir: M. Rodriguez – 18) Tulcan. **L.P:** Dir: J. Betancourt – 19) Cotacachi. 20) Esmeraldas – **L.P:** Dir: G. Berborich – **Ann:** "R. Nacional Espejo, la primera y mas potente emisora del pais" – **V.** by QSL-card.
21) Latacunga – 22) Apt. 91, Ambato – 23) Sto. Domingo de los Colorados – 24) Cas. 142, Esmeraldas. **L.P:** Dir: D. Alvarez T.
25) Tulcan. **L.P:** Dir: E. Cabezas – 26) Alausi. **L.P:** Dir: L. R. Soria – 27) Quevedo. **L.P:** Dir: C. J. Ferand – 28) Otavalo. **L.P:** Dir: J. Vivar – 29) Ambato. **L.P:** Dir: J. Mancero – 30) Chone. **L.P:** Dir: O. Castro – 31) Riobamba. **L.P:** Dir: R. Veloz – 32) Cuenca. **L.P:** Dir: M. Pullas C.

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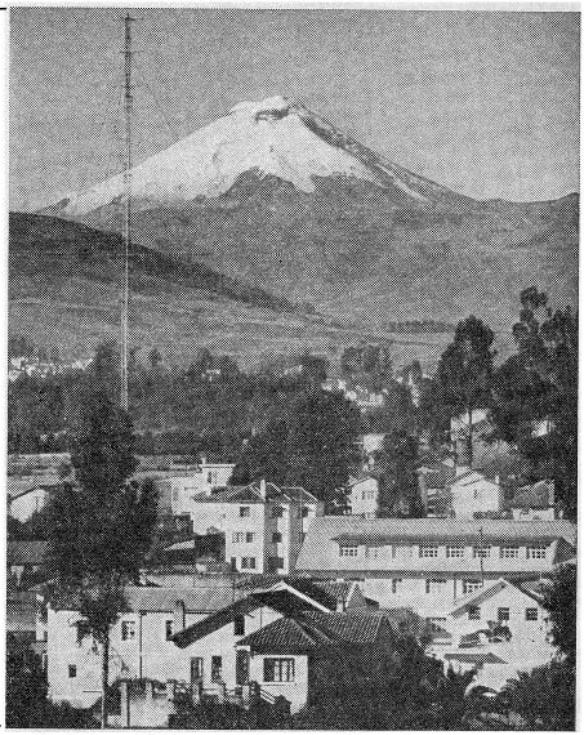


33) Cas. 766, Cuenca. **Te:** 2650. **L.P:** Dir: A. Salazar.
34) 9 de Octubre 308, Guayaquil. **L.P:** G. Vergara J.
35) Sucre 1922, Bahia. **L.P:** Dir: A. Nevarez.
36) Guaranda. **L.P:** Dir: L. Alarcon – 37) Quayaquil –38) Portoviejo. **L.P:** Dir: W. Delgado – 39) Loja. **L.P:** Dir: E. Herrera G.
40) Apt. 3213, Quito. **Cable:** Rahualpa. **Te:** 12385. **L.P:** Dir. Gen: G. Maldonado. Dir. Prgr: G. Jacome. Dir. Tec: L. Calderon. Dir. For. Rel: L. Rivadeneira – **D.Prgr:** m.w: 10.45–04.35. N: 11.00, 18.00, 19.00, 23.00, 01.00, 04.00. **Int.N:** every half h from 11.00–04.30. **Mbg:** Sun 02.30 – **Ann:** "Les habla R. Atahualpa, emisora matriz del Circuito HCMQ, transmite en 1490kc, canal perferencial y 4780kc, canal nacional, desde Quito, capital del Ecuador" – **V.** by letter.
41) Quevedo. **L.P:** Dir: H. Alvarado – 42) Cuenca – 43) Asoc. Juventud Femenina, Loja – 44) Portoviejo. **L.P:** Dir: C. Chavez C. 45) 10 de Agosto 601, Guayaquil – 46) El Angel. **L.P:** Dir: J. Salazar.
47) Portoviejo – 48) Machala – 49) 24 de Mayo, Loja.
50) Quito – 51) Loja. **L.P:** Dir: J. C. Luzuriaga.
52) Apt. 3190, Quito. **Te:** 16717. **L.P:** Dir: A. Davila. Dir. Tec: F. Castillo – **Ann:** "Aqui Emisoras Luz de America, Quito, Ecuador" – **V.** by letter.
53) San Jose de Chimbo. **L.P:** Dir: M. Zanipatin.
54) Quito. **L.P:** as 20). **Ann:** "R. Nacional Espejo la primera y mas potente emisora del pais". **V.** by QSL-card.
55) Asuncion. **L.P:** Dir: F. Mesias – 56) Centro Obrero de Montufar, S. Gabriel.
57) Cas. 2246, Quito. **Cable:** Emigrancolombia. **Te:** 11670. **L.P:** Dir. Gen: E. Cevallos. Dir. Tec: F. Simon. **D.Prgr:** m.w: 11.00–06.00. N: 11.00, 18.00, 03.00 – **Ann:** "Emisoras Gran Colombia-Matriz de RCNE – R. Cadena Nacional Ecuatoriana con 3 Emisoras propias en Quito y 20 Emisoras afiliadas en provincias" – **V.** by letter.
58) La Libertad. **L.P:** Dir: M. Pinargote – 59) Baños.
60) Apt. 57, Quito. **Te:** 10151 – **L.P:** Dir. Gen: C. Mantilla. Dir. Tec: A. Horvath – **D.Prgr:** N: 12.00, 13.15 and every h on the h from 17.00. **Ann:** "R. Quito, La Voz de la Capital... 1360 y 4923kc desde Quito, Ecuador" – **V.** by letter – **F.Pl:** Sw 3kW, mw 5kW.
61) Apt. 67, Quito. **Te:** 31123 – **L.P:** Pres: Dr. B. Carrion – **D.Prgr:** N: 11.45, 03.00 – **Ann:** "Esta es R. difusora de la Casa de la Cultura Ecuatoriana, que transmite desde sus estudios en la ciudad de Quito" – **V.** by letter. **Re.** in Sp – **Pub:** Prgr.sched. on request.
62) Apt. 1316, Quito. **V.** by letter and sched – 63) Sindicato de Choferes, Riobamba – 64) Plaza del Teatro, Quito. **L.P:** Dir: G. Herdoiza. **V.** by letter – 65) Apt. 4980, Cuenca. **L.P:** Dir: A. Cardozo. **V.** by letter.
66) Quito – 67) Cuenca 937, Quito. **L.P:** Dir: Dr. M. A. Rojas.
68) Cuenca. **L.P:** Dir: R. E. Valencia – 69) Azogues. **L.P:** Dir: H. Vicuña N – 70) Azogues. **L.P:** Dir: H. Castañier C – 71) Teatro Roxy, Riobamba. **L.P:** Dir: E. Abbdo.
72) Ibarra. **L.P:** Dir: A. Moran – 73) Cuenca. **L.P:** Dir: D. Pinos.
74) Ibarra. **L.P:** Dir: F. Davilla – 75) Av. Mariano Acosta, Ibarra.
76) Riobamba. **L.P:** Dir: G. Encalada – 77) Latacunga. **L.P:** Dir: C. Moran B – 78) Zaruma. **L.P:** Dir: E. Guzman.
79) Apt. 4869, Manta. **L.P:** Dir: E. Bowen. **D.Prgr:** N: 12.30, 17.00, 23.00 – **Ann:** "Transmite R. Manta, con sus estaciones... la mas antigua y potente emisora del puerto. Desde Manta, Ciudad de turismo y primer puerto maritimo en la Provincia de Manabi". **V.** by QSL-card or letter.
80) Quevedo – 81) Cariamanga. **L.P:** Dir: L. Gustavo Cabezas.

82) **LA VOZ DE LOS ANDES**
Operated by the missionary org: **The World Radio Missionary Fellowship, Inc.** No comm. adv. Public sce. and ann. of cultural activities accepted free of charge – **FI:** Supported by voluntary gifts from Evangelical Christian Groups and "Share-the-cost" plan – **ADDR:** Cas. 691, Quito. **Cable:** Vozandes. (USA Office: Voice of the Andes, Box 691, Miami 47, Florida) – **L.P:** Pres: A. Van der Puy. Dir. Gen: J. Springer. St. Mgr: R. C. Savage. Sp. Sce: Dir's: W. Padilla (Cult), E. Romero (Rel). Eng. Sce: Dir: S. Hunter. Operations Dir: J. Guzman. TV Dir: R. B. Clark.

HOME SCE. in Spanish: D 10.30–04.00.
10.30–14.00 on 700, 760, 6050, 9745, 11915, 15115kc, 14.00–24.00 on 700, 6050, 9745kc, 00.00–02.00 on 700, 6050, 9745, 11915, 15115kc, 02.00–04.00 on 700, 6050kc.
N: W: 11.00, 11.20, 11.30, 13.30, 17.45, 22.30, 00.25, 01.30, 02.30, 03.55 – **T.S:** On the h and half h.

INTERNATIONAL SCE:

TO EUROPE		Language	kc
D	04.30–05.30	Russian	6050, 9745, 11915
D	05.30–06.00	Swedish	6050, 9745, 11915
D	06.00–06.30	German	6050, 9745, 11915
D	06.30–07.00	Spanish	6050
D	07.00–10.00	English	6050
Sun	09.30–10.00	Swedish	6050, 9745, 11915
a)	18.30–19.00	Swedish	15115, 17890
a)	19.00–20.30	English g)	15115, 17890
a)	20.30–21.00	Spanish	15115, 17890
D	21.00–21.30	German	11915, 15115

		Language	kc
TO EUROPE			
D	21.30–22.00	Swedish	9745, 11915
D	22.00–22.30	English g)	9745, 11915
N. (English): 19.00			
TO SOUTH PACIFIC			
D	06.30–09.30	English c)	9745, 11915
W	09.30–10.00	English c)	9745, 11915
D	10.00–10.30	Russian	6050, 9745, 11915, 15115
Mbg: Fri 07.00.			
TO NO & SO. AMERICA			
D	10.30–14.00	Spanish	6050, 9745, 11915, 15115
D	14.00–24.00	Spanish	6050, 9745
D	14.00–15.00*	English d)	15115, 17890
Sun	16.00–17.00	Russian	15115, 17890
D	22.30–23.00	Russian	15115, 17890
D	23.00–23.30	German	15115, 17890
D	23.30–24.00	English d)	15115, 17890
D	00.00–02.00	Spanish	6050, 9745, 11915, 15115
D	02.00–04.00	Spanish	6050
D	02.00–04.30	English e)	9745, 11915, 15115

* Sun 14.00–16.00, Mo 14.00–15.30, Sat 14.00–16.30.

a) D exc. Mo; b) "Caribbean Call"; c) "Southern Cross Salute"; d) "Morning in the Mountains"; e) "Ecuadorean Echoes"; g) "Quito Calling".

N: English 14.00 – **DX-Party Line:** First Mo of month: 02.00–03.00 – **Mbg: English** Wed 03.30, first Mo of month 02.00 – **L.L. (Spanish by Radio):** Thurs 03.30, Fri 07.30.

Time Sig: Automatically on h and half h. Three short tones followed by a long tone at the exact min – **Ann: E:** "This is seventy thousand watt radio station HCJB located near the line of the equator with studios in the capital city of Quito in the republic of Ecuador. We are serving our internat. audience on the 19, 25 and 31 m.b. The time in Quito is... the same as... GMT. This is R.st. HCJB, Quito, Ecuador, So. America" – V. Listeners reports are wanted – these are studied by our engineers. If requested they are answered by QSL-card, in other by letter – **Pub:** Int. prgr. sched. free on request. "Call or the Andes" magazine, free to those repuesting it from: HCJB, Box 691, Miami 47, Fiorida, USA. Sched. of Spanish prgrs – **FM:** 106, 107.8

83) Apt. 288, Quito – 84) Apt. 30, Tulcan. **L.P:** Dir: H. H. Errera, **Ann:** "La Voz de la simpatica popular". V. by letter. Re. in Sp.

85) Cuenca. **L.P:** Dir: M. Merchan – 86) Soc. Distribuidora Co. S.A, La Urdesa, Guayaquil – 87) Latacunga. **L.P:** Dir: V. H. Munoz.

88) Apt. 63, Cuenca. **L.P:** Dir. Gen: J. M. Salazar. Dir. Tec: S. Guerrero. **Ann:** "Esta es Ondas del Perpetuo Socorro, transmitiendo en su frecuencia de 6095kc, banda de 49 metros, desde Cuenca Ecuador". V. by letter. Re. in Sp. Prgr.sched. free.

89) Sindicato Choferes, Portoviejo – 90) Loja. **L.P:** Dir: F. Coronel.

91) T. Martinez 209, Guayaquil. **L.P:** Dir: P. Castillo de Levi

92) Boyaca 1205, Guayaquil – 93) Cas. 726, Azoguez. V. by letter.

94) Quito. **L.P:** Dir: J. Caballero – 95) Babahoyo.

96) Cas. 94, Ambato. **Te:** 2120 – **L.P:** Dir. Gen: O. B. Echeverria – **Ann:** "Sintonizan Radiodif. Paz y Bien, la mensajera de Religion, Arte y Cultura, operando en banda internacional de 49 metros y en banda local de 221 mts., desde Ambato, capital de la Provincia del Tungurahua en el Ecuador" – **Int-Sig:** Gong – V. by letter.

97) Consejo Municipal,Vinces – 98) P.O. Box 261, Ambato. V. by letter.

99) Cas. 204, Guayaquil. **Te:** 12295 – **L.P:** Dir. Gen: V. Paladines. Dir. Tec: F. Casal M – **D.Prgr: N:** 11.00, 13.00, 18.00, 23.15, 01.00, 04.00.

Medium Waves:

100) **R. Barcelona,** Guayaquil – 24 h.

101) **R. San Pedro,** Amaguana. **L.P:** A. Villacis. 23.00–03.00.

102) **R. El Tiempo,** Guayaquil. **L.P:** Dir: R. Calderon P – 24 h.

103) **R. Rey,** Quito – 104) see 55) – 105) **Centro Radiofonico Sideral,** Quevedo. **L.P:** Dir: Davila de la Rosa. 11.00–05.00.

106) **R. Reporter,** Guayaquil. **L.P:** Dir: C. F. Cortez. 11.00–04.00.

107) **R. Reloj,** 5 de Junio, Guayaquil. 24 h.

108) **R. Sucre,** Guayaquil. **L.P:** as 106). 11.00–06.00.

109) **R. Huancavilca,** Guayaquil. 11.00–06.00.

110) **Cultura Municipal,** Quito. 16.45–19.00, 21.45–04.00.

111) **R. Libertad,** Chone. **L.P:** Dir: S. Espinel Alvares – 24 h.

112) **R. Centenario,** Guayaquil. 17.00–04.00 – 113) **R. La Prensa,** Guayaquil. 11.00–04.00 – 114) **R. Umiña,** Manta. 10.30–04.00.

115) **R. Noticia,** Quito. **L.P:** Dir: A. Arcentales: 07.00–20.00, 00.00–04.00 – 116) **R. Pacifico,** Quito. **L.P:** Dir: F. Vallejo S: 11.00–04.00.

117) **R. Atalaya,** El Milagro: 11.00–05.00.

118) **Ondas Lojanas,** Loja. **L.P:** Dir: J. Armijos Valdivieso: 11.00–14.00, 17.00–20.00, 00.00–03.00 – 119) **R. Nac. Espejo,** Guayaquil. 24 h.

120) **R. Tricolor,** Ambato: 23.00–03.00 – 121) **La Voz del Santisimo,** 6 de Marzo 1004, Guayaquil: 12.00–19.00, 22.00–03.00.

122) **R. Ecuatoriana,** Quito: 11.00–04.00.

123) **Ondas del Agoyan,** Baños. **L.P:** Dir: A. Salazar: 11.00–19.00, 22.00–04.00 – 124) **R. Cristal,** Guayaquil. **L.P:** Dir: A. Romero: 09.00–06.00 – 125) **Ondas Azules,** Cuenca. **L.P:** Dir: L. Guayamabe: 20.00–20.30, 02.00–04.30.

126) **Ondas del Chimborazo,** Riobamba: 23.00–03.00.

127) **La Voz del Rio Guayas,** Ejercito 116, Guayaquil: 14.00–04.00.

128) **R. Mejia,** Machachi: 11.00–14.00, 16.00–19.00, 22.00–03.00.

129) see 68) – 130) **Ondas Orenses,** Machala: 11.30–13.30, 16.00–19.00, 00.30–03.30 – 131) **R. Colón,** Colón 1072, Quito: 17.30–19.30, 01.00–04.00 – 132) **La Voz Liberal,** 8 y 9 de Oct, La Libertad, Guayaquil: 10.30–06.00 – 133) **Union Evangelica Misionera,** Colta: 23.00–03.00.

134) **R. Cronos,** Quito: 11.00–03.00 – 135) **R. Ifesa, Cia.** Industrial S.A, Guayaquil: 13.00–04.00 – 136) **R. Un Mundo Mejor,** Atuntaqui. **L.P:** Dir: J. E. Morales: 11.00–14.00, 16.00–18.00, 23.00–03.00.

137) **La Voz de los Rios,** Babahoyo. **L.P:** Dir: G. A. Jacome: 22.00–03.00 – 138) **R. Cosmopolita,** Ambato 1142, Quito. **L.P:** Dir: N. Castro: 13.00–03.00 – 139) **R. Zaracay,** Sto. Domingo Cds.

140) **R. Continente,** Ibarra. **L.P:** Dir: M. Baez R: 11.00–19.00, 21.00–04.00 – 141) **Ondas del Pacifico,** Colón 234, Guayaquil: 11.30–05.00.

142) **R. El Prado,** Rioabmba: 23.00–03.00 – 143) **R. Mambo,** Guayaquil. **L.P:** Dir: J. J. Vilaseca – 144) **R. Vision,** Cuenca. **L.P:** Dir: T. Rodas: 11.00–04.00.

145) **R. Mil Veinte,** Plaza de Santo Domingo, Quito: 10.45–04.00.

146) **La Voz de Pueblo,** Riobamba: 23.00–03.00 – 147) **La Voz del Valle,** Machachi: 11.45–19.00, 22.30–03.30.

148) **Ondas Cañaris,** Azogues: 11.00–14.00, 15.45–19.00, 21.45–03.45.

149) **R. Sport,** Quito. **L.P:** as 20): 11.00–06.00.

150) **Ecos del Pueblo,** Saquisili. **L.P:** Dir: A. Cueva Y: 23.00–03.00.

151) **R. Cine,** Ambato – **L.P:** Dir: B. Ortiz.

152) **R. El Oro,** Machala. **L.P:** Dir: R. Veintimilla A: 11.00–13.00, 17.00–19.00, 00.00–05.00 – 153) **R. Libertad,** Quito. **L.P:** Dir: C. Pesantes T:11.00–03.00.

154) **R. Noticia,** Vélez 534, Guayaquil: 11.30–06.00 – 155) **R. Sucesos,** Quito: 11.00–05.00 – 156) **R. América,** Luque 910, Guayaquil: 11.00–05.00 – 157) **Rio Amazonas,** Macuma: 23.00–03.00.

158) **R. Luz,** Ambato: 23.00–03.00 – 159) **Emisoras Tribuna del Sur,** Cuenca – 160) **R. Nuevo Mundo,** Quito: 10.45–15.00, 16.45–04.00.

161) **La Voz de Riobamba,** Riobamba. **L.P:** as 20): 23.00–03.00.

162) **R. Central,** Riobamba: 23.00–03.00 – 163) **R. Tribuna del Sur,** Cuenca. **L.P:** Dir: A. Alfonso Parra: 23.00–03.00.

164) **R. Central,** Maldona Villa 1, Quito: 10.45–05.00 – 165) **R. Excelsior,** Luque 1102, Guayaquil: 13.00–04.00 – 166) **R. Turismo,** Sangolqui: 23.00–03.00.

167) **R. Atlántida,** Cas. 1020, Quito. **Te:** 13751 – **L.P:** Dir. Gen: G. U. Ordoñez. Dir. Tec: V. Ordonoz P – **D.Prgr:** 14.00–19.00, 23.00–03.30. **N:** 11.00, 00.00 – **Ann:** "Desde Quito, Ecuador, transmite radiodifusora Atlántida, una Voz ecuatoriana en el cielo de America 1210kc" V. by letter – 168) **R. Colegio San Felipe,** Riobamba: 23.00–03.00.

169) **La Voz del Austro,** Cuenca. **L.P:** Dir: M. Villavicencio.

170) **R. Metropolitana,** Av. Colombia 256, Quito: 11.00–03.00. N: 12.00, 03.00.

171) **La Voz del Litoral,** Junin 206, Guayaquil: 11.00–04.00.

172) **R. Universal,** Bolivia 715, Guayaquil: 24 h – 173) **R. Mariscal Sucre,** San Isidro.

174) **R. Cenit,** Av. 9 de Octubre, Guayaquil: 11.00–15.00, 17.00–20.00, 22.00–04.00 – 175) **R. Continental,** "La Voz de la Sierra Ecuatoriana", Ambato: 10.30–03.00 – 176) **R. Victoria,** Quito: 11.00–06.00.

177) **La Voz del Rio Quevedo,** Quevedo. **L.P:** Dir: H. Al. Prado: 11.00–14.00, 16.00–20.00, 22.00–05.00 – 178) **R. Juan Montalvo,** Ambato – 179) **R. El Tiempo,** Guayaquil 1542, Quito: 11.00–06.00.

180) **R. Continental,** Colón 520, Guayaquil: 12.00–19.00, 22.00–04.00.

181) **R. Tropical,** Manta: 11.30–04.00 – 182) **R. Nac. Espejo,** Ambato.

183) **R. Guayaquil,** Lavallén 222, Guayaquil: 10.00–06.00.

184) **R. Usaid,** Movil: 11.00–14.00, 16.00–18.00, 23.00–02.00.

185) **R. Nueva Ortiz,** Esmeraldas 1912, Guayaquil: 11.00–04.00.

186) **R. Reloj,** Quito. **L.P:** as 20): 11.00–06.00 – 187) **R. El Triunfo,** Esmeraldas. **L.P:** Dir: D. Alvarez Tenorio: 11.00–05.00.

188) **R. Consular,** Tulcan. **L.P:** Dir: F. Pazos M:23.00–03.00.

189) **Ecos de Jambeli,** Puerto Bolivar. **L.P:** Dir: M. Alvarez M: 11.00–04.00 – 190) **R. Sira,** Salcedo. **L.P:** Dir: C. Villacreses M: 12.00–14.00, 17.00–19.00, 23.00–03.00 – 191) **R. Puruha,** Riobamba: 23.00–03.00 – 192) **R. Sucesos,** Guayaquil. **L.P:** Dir: E. Weisson P: 12.00–04.00 – 193) **R. Cordillera,** Apt. 1003, Quito.

194) **R. Panamericana,** Benalcazar 697, Quito: 10.30–19.00, 21.30–03.00 – 195) **R. Exito,** Quito. **L.P:** Dir: J. Rodriguez: 11.00–05.00.

FALKLAND ISLANDS (British)

L.T: GMT ÷ 4 h (April–Sept: ÷ 3 h) – **Pr.L:** English.

FALKLAND ISLANDS BROADCASTING SERVICE (Go.)

FI: By license payments and Go. grant – **ADDR:** Broadcasting Studios, Stanley. **Cable:** Broadcasts. **Te:** 90 – **L.P:** Dir: Ch. T. Reive. **STATIONS:** 585kc 513m 5kW – 3958kc 75.79m 0.5kW.

The Marconi Company Ltd. G.B, delivered 5kW mw-tr.

HOME SCE: W 22.45(Sat 21.30)–01.00(Sat 02.00). Sun 21.45–01.30 – **N: BBC:** W 11.00 (Oct–March), 13.00 (April–Sept), 23.00 (Oct–March), 00.00 (April–Sept). **Local N:** Fri 23.35 – **ANN:** "This is the Falkland Islands Broadc. Station" – V. by letter. Reports from So. America only.

GUIANA (British)

L.T: GMT÷3¾ h – **Pr.L:** English.

BRITISH GUIANA BROADCASTING CO. LTD. (Comm.)
FI: By adv – **ADDR:** Broadc. House, Philip's Green, High St, Georgetown. **Cable:** Broadcast. **Te:** 2691 – **L.P:** Ag. Gen. Mgr: E. A. D. Saul. Eng.-in-charge: E. R. McDowell.
STATIONS: ZFY R. Demerara and B.G.B.S.

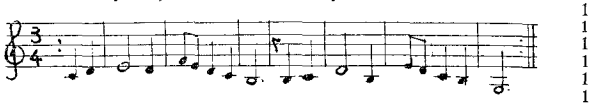
560 kc	536 m	10 kW	–	3265 kc	91.87 m	2 kW	
760 –	395 –	10 –	–	5980 –	50.17 –	2 –	

BGBS 560kc: W: 09.45–12.45, 20.45–01.50. Sun: 10.45–01.50.
ZFY 760kc: 09.15(Sun 09.45)–02.45(Sat 03.45). **3265kc:** 19.45–02.45 (Sat 03.45). **5980kc:** 09.15(Sun 09.45)–19.45.
ANN: On 560kc: "This is B.G.B.S. the British Guiana Broadcasting Sce". On 760, 3265, 5980kc: "This is R. Demerara, British Guiana".
V. by QSL-card. Rp. Records accepted.

GUIANA (French)

L.T: GMT÷4 h – **Pr.I.:** French.

R.DIFF. TELEVISION FRANÇAISE
(local st. of Antilles-Guyane net.)
ADDR: Av. Madame Payée prolongée, Cayenne. **Te:** 355 – **L.P:** St. Mgr: G. Guimon. Dir. Gen: M. Bazire. Mgr: M. Gadin.
STATION: (System TRT): 6075kc 49.38m 1kW.
HOME SCE: *Mo–Fri: 10.15–11.15, 16.45–17.45, 22.30–01.00. Sun:* 11.00–14.00, 16.00–18.00, 22.30–02.00. **N:** 10.30, 22.50 – **Wrp:** 23.00.
ANN: "Ici Cayenne, Radiodiffusion Française" – **INT-SIG:**



V. by letter.

PARAGUAY

L.T: GMT÷4 h – **Pr.L:** Spanish.

ADMINISTRACION NACIONAL DE TELECOMUNICACIONES
ADDR: Administración General, Cas. Correo 84, Asunción. **Cable:** Antelco. **Te:** 4001 – **L.P:** Dir: B. Guanes S.
STATIONS: All st's comm. exc. R. Nacional.
Short Waves: Call: ZP—.

	Call	kc	m	kW	N. and h of tr.
1)	A6	5975	50.21	3	R. Guairá, Villarrica: 12.00–18.00, 21.00–03.00.
2)	A10	6015	49.88	1	R. Paraguay, Asunción: 10.00–19.00, 20.00–02.00.
3)	A1	6025	49.79	3	R. Nacional, Asunción: 11.00–17.00, 20.00–02.00.
4)	A11	6110	49.10	1	R. Charitas, Asunción: 14.00–01.00
5)	A3	11850	25.32	3	*R. Teleco, Asunción:* 14.00–23.00
6)	A5	11945	25.12	5	R. Encarnación: 11.00–14.00, 16.00–24.00
7)	A7	15210	19.72	3	R. Guaraní, Asunción: 12.00–16.00, 19.00–03.00

Medium Waves: Call: ZP—. °=Short Waves. *=also FM.

Call	kc	kW	Call	kc	kW	Call	kc	kW
8) 15	560	0.25	6) 5	°900	3	2) 10	°1300	1.5
9) 12	700	10	3) 1	°920	10	1) 6	°1360	1.5
7) 7	°730	1.5	11) 9	970	1.5	5) 3	°1430*	1
10) 14	870	5	4) 11	°1200	1.5	12) 8	1480	1

Short Waves:
1) Alejo García y Pte. Franco, Villarrica. **Te:** 85 – **L.P:** Dir: E. Traversi V – **Ann:** "ZP6 y ZPA6, R. Guairá, Voz de Progreso y Cultura" – **V.** by QSL-card or letter.
2) Av. Dr. Gaspar R. de Francia 123, Asunción – **L.P:** Dir. Gen: G. H. Mora. Dir. Tec: P. Pereira – **V.** by QSL-card. Rp.
3) Cnel. Martinez 224, Asunción – **L.P:** Dir. Gen: A. Cáceres Almada. Dir. Tec: P. Pereira – **D.Prgr: N:** 16.30, 23.30, 02.30 – **Ann:** "ZP1 y ZPA1, R. Nacional del Paraguay" – **V.** by letter.
4) L. A. de Herrera 124-140, Asunción.
5) Av. Gral. Artigas y Bañado, Asunción – **L.P:** P. García – **Ann:** "ZP3 y ZPA3, *R. Teleco, Asunción, República del Paraguay*" – **V.** by letter.
6) Encarnación – **L.P:** Dir: A. Vera – **V.** by letter.
7) Independencia Nac. 703, Asunción. **Te:** 6393 – **L.P:** Dir: M. A. Dominguez. Dir. Tec: M. Saccarello – **V.** by letter.
Medium Waves:
8) **La Voz del Amambay,** Pedro Juan Caballero: 10.30–11.30, 14.00–17.00, 22.00–01.00.
9) **R. Carlos Antonio López,** Pilar – 10) **R. Nanduti,** Asunción.
11) **R. Comuneros,** Estados Unidas y 90 Pdas, Asunción: 09.00–03.00.
12) **R. Ypir,** Concepción: 11.00–17.00, 21.30–02.00.

PERU

L.T: GMT÷5 h – **Pr.L:** Spanish.

JUNTA PERMANENTE NACIONAL DE TELECOMUNICACIONES
ADDR: Ministerio de Gobierno y Policía, Av. Arequipa 734 Lima. **Te:** 3-5965 – **L.P:** Pres: Gen. Fuentes Revilla.

ASOCIACION NACIONAL DE RADIO EMISORAS DEL PERU – **ADDR:** Av. Tacna 543, 95, Lima. **Te:** 32270 – **L.P:** Pres: N. Gonzales V.
STATIONS: All st's comm. exc. 52), 60), 106), Go. 12), 26), 33), 37), 43), 47), 64), 71), 93), 94), 99), 111), 118), 119) Cul.
Short Waves: *=inactive.

Call	kc	m	kW	Name	h of tr.
1) OBX7D	3230	93.00	0.4	R. El Sol, Juliaca	
2) OAX2C	3230	93.00	2	R. Trujillo	12.00–05.30
3) OBX4U	3240	92.59	1	R. América, Lima	11.00–05.00
4) OAZ4G	3250	92.31	0.4	R. La Oroya[1]	
5) OBX1E	3280	91.40	1	R. Chulucanas	
6) OBX4Y	3300	90.85	0.5	R. Junin, Huancayo[1]	11.15–04.15
7) OAX1M	3330	90.09	1	R. Progreso,[2] Piura	
8) OAX5J	3350	89.55	1	R. Independencia[2], Ica	12.00–06.00
9) OAX3D	3360	89.29	0.5	R. Huánuco[1]	
10) OAX1O	3380	88.76	1	R. Chiclayo[2]	
11) OAX3G	*3390	88.50	0.5	R. Chimbote[1]	
12) OAX7O	3960	75.76	0.5	R. Madre del Dios, Puerto Maldonado	23.00–02.00
13) OAX9D	4725	63.48	1	R. Tropical, Tarapoto	
14) OCX4W	4762	63.00	0.5	R Inca, Lima	11.00–07.00
15) OAX2G	4770	62.89	0.5	R. Cajamarca[1]	
16) OAX5X	4790	62.63	0.5	R. Nazca	11.00–05.00
17) OAX3E	4808	62.40	0.5	R. Huaraz[1]	
18) OBX1C	*4815	62.31	1	R. La Voz de la Frontera, Tumbes	
19) OAX5U	4815a	62.31	1	R. Huancavelica	17.00–04.45
20) OAX7K	4820	62.24	0.5	R. Puno[1]	01.00–04.00
21) OAX7T	4835	62.05	0.35	R. Sicuani	11.45–04.00
22) OAZ4J	4835	62.05		R. Ritmo, Lima	
23) OAX1X	4845	61.92	1	R. Chira, Sullana	
24) OCX4B	4850	61.86	0.5	R. Callao[1]	12.00–05.00
25) OAX8I	*4855	61.79	0.5	R. La Hora[1], Iquitos	
26) OCX4T	4870	61.60	0.5	R. Cultural, Huancayo	
27) OCX4E	4880	61.48	1	R. Once Sesenta, Lima	18.00–05.00
28) OAX5V	4885	61.45	1	R. Villarica, Huancavelica	
29) OAZ4A	4889	61.42	0.5	R. Tarma	
30) OAZ4T	4895	61.29	2	R. Chanchamayo, La Merced[1]	
31) OAX2K	4910	61.10	0.5	R. Libertad, Trujillo	12.00–05.00
32) OAX2H	*4920	60.98	0.5	R. Hora[1], Trujillo	
33) OAX5Q	4934	60.80	0.25	R. Cultural, Abancay	
34) OAZ4R	4940	60.73		R. San Juan, Tarma[1]	
35) OAX6N	4940	60.73	0.5	R. Misti[1], Arequipa	12.00–04.30
36) OAZ4I	*4945	60.67	0.4	R. Huacho[1]	
37) OAX5S	4955	60.54	0.25	R. Amauta, Ayacucho	17.30–23.30
38) OAX1S	4960	60.48	0.5	R. Lambayeque[1], Chiclayo	11.15–05.00
39) OAZ4C	4995	60.06	1	R. Andina[1], Huancayo	11.00–05.00
40) OAX5O	*5010	59.88	1	R. Pisco	
41) OAX8V	5010	59.88	0.4	R. Eco, Iquitos	
42) OAX7Z	5015	59.82	0.5	R. Juliaca	17.00–19.00, 22.00–04.00
43) OAX5R	5020	59.76	0.15	R. San Cristobal, Ayacucho	
44) OAX7Q	5025b	59.70	0.3	R. Quillabamba	
45) OAX1J	5050	59.41	1	R. Tumbes[1]	
46)	5180	57.90		R. Atlantida, Iquitos	11.00–05.00
19) OAX5X	5440	55.15	1	R. Huancavelica	
10) OAX1O	5680	52.78	1	R. Chiclayo[2]	12.00–05.00
17) OAX3E	5700	52.65	0.5	R. Huaraz[1]	
47)	5710	52.57		R. Ayaviri	
48) OCX4R	5830d	51.45	0.1	R. Industrial, La Oroya	
49) OAX4P	5950	50.42	0.5	R. Huancayo	11.30–04.30
50) OAX7L	5960e	50.34	1	La Voz del Altiplano, Puno	13.00–05.00
51) OBX4Q	5970	50.25	10	R. El Sol, Lima	11.00–05.00
52) OBX4M	5980	50.17	5	R.Panamericana,Lima	12.00–06.00
53) OAX7E	6000	50.00	1	R. Nacional, Puno	12.00–05.00
3) OAX4V	6010	50.08	3	R. América, Lima	11.00–05.00
54) OAX4Q	6020	49.83	3	R. Victoria, Lima	11.00–06.00
53) OAX8B	6028	49.77	1	R. Nacional, Iquitos	11.00–05.00
55) OAX6B	6038	49.69	0.5	R. Landa, Arequipa	12.00–05.00
56) OAX6A	6042	49.52	0.3	R. Arequipa	12.00–04.30
57) OAX6E	6055	49.54	1	R. Continental, Arequipa	11.00–06.00
2) OAX2A	6057	49.65	2	R. Trujillo	12.00–05.30
59) OAX8L	6062	49.48	1	R. Telesar, Pucallpa	12.00–14.00 16.00–19.00, 23.00–03.00
60) OAX4S	6070	49.42	2.5	R. Onda Popular, Lima	24 h
53) OAX4Z	6082	49.32	10	R. Nacional, Lima	12.00–05.00

Peru

Call	kc	m	kW	Name	h of tr.
53) OAX6F	*6105	49.14	1	R. Nacional, Tacna	
61) OAX4H	6115	49.06	0.3	R. Mundial, Lima	12.30–05.00
62) OBX4Z	6115	49.06	1	R. Luz, Lima	12.00–05.00
63) OCX4A	*6123	49.00		R. La Crónica, Lima	
64) OCX4M	6135	48.90	0.3	R. Pasco, Cerro de Pasco	
65) OAX9B	6140	48.86		R. Amazonas, Chacapoyas	
66) OBX4G	6150	48.78	0.5	R. Excelsior, Lima	12.00–05.00
67) OCX4G	6160	48.70	1	R. Mundo, Huancayo	11.00–05.00
7) OAX1N	6170	48.62	1	R. Progreso, Piura	12.00–05.00
68) OBX4B	6170	48.62	0.3	R. Corporación, C. de Pasco	10.00–05.00
69) OAX4G	6190	48.47	0.3	R. Lima	12.00–07.00
70) OAZ4E	6195h	48.43	0.5	R. Mineria, La Oroya	
71) OAX1B	6198	48.40	1	R. Piura	12.00–05.00
72) OAX6I	6235	48.10	1	R. Universidad, Arequipa 12.00–18.00, 22.30–03.30	
73) OAX7A	6250	48.00	1	R. Cuzco	23.00–05.00
74) OAX7C	6265	48.90	0.3	R. Tahuantisuyo, Cuzco	
75) OBX4P	6300	47.62	0.75	R. Miraflores, Lima	13.00–05.00
76) OAX1A	6700	44.74	0.3	R. Delcar, Chiclayo	00.00–05.30
57) OAX6D	*9350	32.09	1	R. Continental, Arequipa	
77) OAX8F	9470	31.68	1	R. Loreto, Iquitos	11.00–04.00
78) OAX6H	9500	31.58	0.25	R. Tacna	10.45–05.20
3) OAX4W	9510	31.55	1	R. América, Lima	11.00–05.00
63) OAX4J	9520	31.51	1	R. La Crónica, Lima	11.00–07.00
53) OAX6L	9530	31.48	1	R. Nacional, Tacna	12.00–05.00
25) OAX8I	9540	31.45	0.5	R. La Hora[2], Iquitos	
79) OAX4K	9545	31.43	0.5	R. Central, Lima	12.00–06.00
53) OAX1Z	9550	31.41	2	R. Nacional, Tumbes	12.00–05.00
53) OAX4R	9562	31.37	40	R. Nacional, Lima	12.00–05.00
53) OAX7F	9570	31.35	1	R. Nacional, Puno	12.00–05.00
80) OAX8Q	9577	31.33	1	R. Pucallpa	
81) OAX4K	9585	31.30	0.75	R. Selecta, Lima	13.00–04.30
82) OAX5C	9590	31.28	1	R. Ica[1]	11.00–04.00
83)	9600	31.25		R. Ayacucho[1]	
84) OAX1R	9600	31.25	0.3	R. Talara[1]	11.30–04.00
53) OAX8C	9610	31.22	1	R. Nacional, Iquitos	12.00–05.00
1) OBX7E	9618	31.19	0.4	R. El Sol, Juliaca	
46) OAX8K	9625g	31.17	1	R. Atlántida, Iquitos	11.00–05.00
86) OCX4K	9635	31.14	5	R. Expresso, Lima	12.00–06.00
87) OAX1T	9645	31.10	1	R. Grau[1], Piura	11.30–05.00
41) OAX8U	9665	31.04	1	R. Eco, Iquitos	
14) OCX4W	9675	31.01	0.25	R. Inca, Lima	11.00–06.00
94) OAZ4L	9675	31.01	7	R. del Pacifico	17.00–03.00
88) OCX4Y	9695	30.94	1	R. Continente, Lima	11.30–06.00
13) OAX9D	9710	30.90	1	R. Tropical, Tarapoto	11.25–04.00
89) OAX7J	*9730	30.83	0.5	R. La Hora[1], Cuzco	
90) OAX8O	9770	30.71	1	R. Amazonas, Iquitos	
53) OBX4R	*11914	25.18	10	R. Nacional, Lima	
53) OBX4T	15150	19.80	40	R. Nacional, Lima	irr.
51) OBX4C	15180	19.76	0.5	R. El Sol, Lima	11.00–05.00
53) OBX4T	*21600	13.89	10	R. Nacional, Lima	

a) actually on 4990kc – b) actually on 5300kc – c) actually on 5700kc – d) actually on 5960kc – e) actually on 5808kc – f) actually on 4862kc – g) reported on 5180kc also – h) actually on 6204kc.

Medium Waves: °=Short Waves.

Call	kc	kW	Call	kc	kW
91) OCX4S	580	0.15	61) OAX4F	°1080	3
62) OBX4L	°590	10	5) OBX1D	°1080	1
92) OAX2M	620	0.4	98) OAX1D	1080	1
93) OAX7U	620	1	90) OAX8N	°1080	1
19) OAX5T	°620	1	2) OAX2B	°1095	2
40) OAX5P	°620	1	53) OBX4A	°1120	
94) OAZ4K	°640	10	81) OAX4N	°1130	3
57) OAX6C	°690	2	20) OAX7H	°1130	1
4) OAZ4F	°690	0.4	84) OAX1Q	°1130	1
11) OAX3F	°690	0.5	30) OAZ4S	°1130	
22) OBX4S	°730	1	27) OAX4C	°1160	5
8) OAX5E	°730	0.5	53) OAX7D	°1160	1
95) OAX2J	730	1	53) OAX1K	°1160	2
54) OAX4X	°780	10	17) OAX3B	°1160	0.5
96) OAX4O	820	1	31) OAX2C	°1160	1
53) OAX4A	°854	20	53) OAX6D	°1165	0.35
7) OAX1D	°890	1	69) OAX4B	°1200	1
16) OAX5N	°890	0.5	74) OAX7B	°1200	0.3
51) OBX4X	°900	10	99) OAX8M	1200	0.5
79) OAX4E	°940	5	53) OCX4Z	°1225	3
52) OAX4D	°960	10	80) OAX8P	°1250	0.4
32) OAX2F	°980	1	75) OAX4L	°1250	2
86) OBX4J	°985	5	87) OAX1H	°1270	2
3) OAX4U	°1010	10	82) OAX5B	°1270	1
60) OBX4O	°1030	2.5	41) OAX8T	°1270	1
50) OAX7N	°1030	1	36) OAZ4H	°1270	1
53) OAX8A	°1030	1	100) OAX4M	1300	1
35) OAX6L	°1050	1	101) OAX6P	1300	0.4
38) OAX1I	°1300	1	1) OAX7W	°1460	1
42) OAX7H	°1300	0.3	110) OAX5K	1460	1
63) OAX4J	°1320	10	14) OBX4E	°1470	1
102) OAX1F	1320[2]	1	49) OCX4D	°1470	1
13) OAX9C	°1340	1	73) OAX7G	°1470	0.1
103) OAX5D	1340	0.3	78) OAX6K	°1470	0.35
104) OAZ4Q	1340		25) OAX8H	°1470	1
83) OAX5H	°1340	0.5	71) OAX1Y	°1490	1/0.3
10) OAX1E	°1340	1	111) OBX4I	1490	
66) OAX4Y	°1360	3	64) OCX4P	°1490	0.3
21) OAX7R	°1365	0.35	46) OAX8J	°1490	1
105) OAX3H	1370	1	32) OAX5L	°1490	0.25
106) OAX8G	1370	0.5	72) OAX6M	°1510	
107) OAX5I	1370[1]	0.5	112) OCX4V	1510	1
108) OAX5F	1370[1]		113) OCX4J	1510	0.1
6) OBX4V	°1370	1	114) OAX2L	1510	0.25
15) OAX2D	°1370	0.5	115) OBX4D	1520	1
45) OAX1G	°1370	1	116) OAX7P	1520	1
77) OAX8D	°1380	1	70) OAZ4D	°1520	0.5
24) OBX4W	°1400	2.5	39) OAZ4B	°1520	1
55) OAX6J	°1400	1	76) OAX1C	°1520	1
89) OAX71	°1400	1	68) OBX4N	°1540	0.35
34) OAZ4P	°1400		117) OAX6Q	1540	0.5
109) —	1430[1]	0.5	118) OAX7U	1560	0.35
88) OCX4X	°1440	1	119) OAX7V	*1570	
18) OBX1B	°1450		28) OAX5M	°1580	0.15
23) OAX1V	°1460	1	67) OCX4F	°1580	1
9) OAX8C	°1460	1			

[1]=belongs to Cadena Nacional – [2]=belongs to Emisoras Nacionales.

Continental Electronics, USA: 1kW mw and sw-tr (R. Luz), 1kW mw-tr (R. Popular).

Short Waves:

1) Juliaca – **L.P:** Dir: J. Cornejo P.

2) Almago 349, Trujillo. **L.P:** Dir: J. Castro. **Ann:** "La Voz del Norte del Peru". **V.** by letter.

3) Eq. Montero Rosas y Mariano Carranza, Lima. **L.P:** Mgr: N Gonzales. **Ann:** "La Voz del Nuevo Mundo, desde Lima".

4) Ca. Tarma 195, La Oroya – 5) Chulucanas.

6) Callao 120, Huancayo. **L.P:** Mgr: R. Rasa Z. **V.** by QSL-card.

7) Ica 419, Piura – 8) Independencia 339, Ica – 9) Huánuco.

10) Balta 618, Chiclayo. **Ann:** "La Emisora Más Popular del Norte".

11) Ca. Villavicencio 267, Chimbote. **Ann:** "R. Chimbote, la emisora de los mejores programas".

12) Vicario Apostolico, Puerto Maldonado. **L.P:** Dir. Gen: J. Barriales. Dir. Tec: T. Guerrero. **D.Prgr: N:** 00.30. **Ann:** "Emisora Madre de Dios OAX7O 3960kc desde sus estudios en Puerto Maldonado, Emisora Cultural al servicio de la Iglesia Católica" – **V.** by letter.

14) Av. Wilson 1191, Lima. **D.Prgr: Japanese:** W 14.00–15.00, 18.30–20.15, 02.00–03.15 – 15) Plaza de Armas, Cajamarca.

16) Apt. 67, Nasca. **L.P:** Dir. Gen: A. Cordova B. **D.Prgr:** 12.00–05.00 – 17) Jirón Cuzco 107, Huaraz – 18) Alfonso Ugarte 12, Tumbes.

19) S. Francisco 316, Huamanga. **L.P:** Dir: F. Cruz M. **Ann:** "OAX 5M 1510kc y OAX5U 4815kc, transmite R. Huancavelica, una voz del corazón de los Andes, desde Huancavelica, Perú".

20) Arequipa 100, Puno. **L.P:** Dir. Gen: J. E. Zea Gonzales. Dir. Tec: R. Laso V. **Ann:** "La Emisora de los Mejores Programas" or "La Voz del Departamento más poblado del Perú". **V.** by QSL-card.

21) Apt. 45, Sicuani. **Ann:** "R. Sicuani, La Voz de Canchis".

22) José Diaz 340, Lima – 23) Sucre 556, Sullana.

24) Cólon 260, Callao. **L.P:** Mgr: C. Bovadilla. Dir. Tec: E. Lastarria. **D.Prgr:** 12.00–05.00. **Ann:** "OBX4W 1400kc y OCX4B 4850kc transmite Nueva R. Callao, La Voz del Primor Puerto del Perú". **V.** by letter.

25) S. Martin 126, Iquitos. **Ann:** "La Voz de la juventud loretana en el cielo amazónico" – 26) Cas. 245, Huancayo.

27) Av. Alfonso Ugarte 980, Lima. **Ann:** "R. Once Sesenta, la primera emisora dedicada a la mujer".

28) Ca. Virrey Toledo 468, Huancavelica – 29) Jirón Huaraz 198, Tarma.

30) Tarma 438, La Merced. **Ann:** "OAX4S 1130kc y OAZ4T 4895kc onda corta, banda de 60 metros, transmite R. Chanchamayo desde La Merced, capital cafetelera del Perú. Emisora afiliada a la Organización de R. Victoria de Lima".

31) Cas. 247, Trujillo. **L.P:** Gen. Mgr: C. Burmester L. **Ann:** "R Libertad, la voz del pueblo y de la juventud".

32) Zepita 439, Trujillo. **Ann:** "R. La Hora, la emisora de los éxitos".

33) Concejo Provincial de Abancay, Abancay – 34) Huanuco 448, Tarma – 35) Apt. 657, Arequipa. **L.P:** Mgr: R. Zúniga G – 36) Av. Echenique 140, Huacho.

37) Cas. 24, Huanta. **L.P:** Dir: M. E. Cueva Tafur. **Ann:** "R. Amauta, Estación Cultural en Huanta, Perú" – 38) Balta 413, Chiclayo.

39) Ca. Real 319, Huancayo. **L.P:** Dir: F. C. M. Dante Altamirano. **Ann:** "Del Centro Urbano más importante transmite R. Andina". **V.** by letter – 40) Av. Ocho de Setiembre 210, Pisco.

41) Cas. 170, Iquitos. **L.P:** Dir: F. Reatogui S.

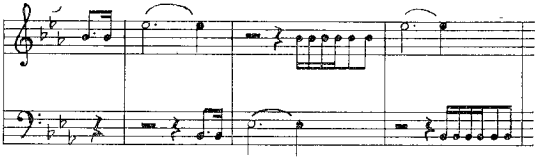
42) Ca. 9 de Diciembre 199, Juliaca. **L.P:** Dir. Gen: J. E. Zea Gonzales.

Dir. Tec: V. Urviola. **Ann:** "Desde el Corazón de los Andes". **V.** by letter.
43) Obispado de Ayacucho, Pasaje Protzel, Ayacucho. **Ann:** "Desde Ayacucho, R. San Cristobal de Huamanga".
44) Plaza de Armas 358, Quillabamba. **L.P:** Dir: C. Lizárraga.
45) Plaza de Armas, Tumbes. **Ann:** "La Voz de la Juventud".
46) Apt. 277, Iquitos. **L.P:** Dir: J. Reategui B. Dir. Tec: M. Panduro. **Ann:** "Una voz loretana para el Perú y el mundo" or "La Emisora de los mejores programas". **V.** by QSL-card – 47) Ayavari.
48) Arequipa 201, La Oroya.
49) Cas. 187, Huancayo. **L.P:** Dir: A. Elejalde G. **Ann:** "La Voz del Centro del Perú" or "OCX4D y OAX4P, R. Huancayo, La Voz del Centro del Perú".
50) Apt. 130, Puno. **L.P:** Dir: J. E. Gonzales. **Ann:** "En el corazón de los Andes usted escucha la Emisora de los grandes exitos" or "OAX7L 5960kc y OAX7N 1030kc, Emis. de la Voz del Altiplano desde Puno, República del Perú" – 51) J. Galvez 1040, Lima.
52) Av. Arequipa 1110, Lima. **L.P:** Dir: H. Delgado Parker. Dir. Tec: M. Flores. **Ann:** "Sabe quién transmite? R. Panamericana" or "Panamericana, ciudad de Lima". **V.** by letter.
53) P. Thouars 441, Lima. **L.P:** Dir. Gen: A. Semach T. Mgr: R. Raggio. Dir. Tec: R. Pflucker. **D.Prgr:** mw 11.45–05.00. **N:** on the h. **Ann:** "R. Nacional del Perú, la Primera Emisora del País". **V.** by QSL-card and letter.
54) Paseo de la República, Lima. **L.P:** Mgr: J. E. Cavero. Dir. Tec: E. Lastarria. **Int-Sig:** First movement of Beethoven's 5th Symphony. **V.** by letter.
55) Sucre 409, Arequipa. **L.P:** Dir: M. J. Landa. **V.** by QSL-card.
56) Apt. 657, Arequipa. **L.P:** Mgr: R. Zúñiga G.
57) Cas. 856, Arequipa. **L.P:** Mgr: E. Umbert F. **Ann:** "OAX6C y OAX6E Emis. de R. Continental de Arequipa" – 58) see 2).
59) Raymondi 463, Pucallpa. **L.P:** Dir: A. Chaque. **Ann:** "R. Telesar, La Voz del Progreso y Cultura". **V.** by letter.
60) Huallaga 515, Lima. **L.P:** Dir. Gen: P. Tello. Dir. Tec: G. Rojas.
61) Unión 733, Lima. **L.P:** Dir: M. Luna. Dir. Tec: D. Capella.
62) Tacna 543, Lima. **L.P:** Dir: W. R. Quintas. **Ann:** "R. Luz, la primera emisora del dial". **V.** by QSL-card.
63) Tacna 665, Lima. **L.P:** Dir. Gen: J. Silva.
64) Apt. 128, Cerro de Pasco. **L.P:** Dir: L. Rosazza. **Ann:** "Radiodif. Cerro de Pasco S.A. afiliada a la Federación Peruana de Radiodif. y Cadena Nacional de Emisoras" – 65) Chachapoyas.
66) Apt. 1082, Lima. **L.P:** Dir: A. Belmont. Dir. Tec: J. Fartan. **Ann:** "Transmite R. Excelsior la Emisora más Criolla del Perú".
67) Cas. 426, Huancayo. **L.P:** Dir: M. Guanay G. **V.** by letter.
68) Apt. 19, Cerro de Pasco. **Ann:** "La Voz de Cerro de Pasco".
69) Nicolas de Piérola 533, Lima. **L.P:** Dir: O. Dianderas.
70) Dario León 313-538. La Oroya. **L.P:** Dir: F. Cruz M. **Ann:** "Desde el Corazón de los Andes".
71) Apt. 149, Piura. **L.P:** Mgr: M. Gamero L. **Ann:** "R. Piura, la decana del Departamento". **V.** by letter.
72) Cas. 23, Arequipa. **Te:** 2340. **L.P:** Dir. Gen: J. Cornejo P. Dir. Tec: H. Delgado C. **D.Prgr:** N: 00.20. **Ann:** "OAX61, R. Universidad, Emis. Oficial del Instituto de Extension Cultural de la Universidad. Nac. de San Agustin de Arequipa". **V.** by letter.
73) Montero 114, Cuzco. **L.P:** Dir: C. Lizárraga. **Ann:** "La Voz de la Capital Arqueológica de América".
74) Av. Sol, Cuzco. **L.P:** Dir: R. Montesinos. **Ann:** "La Emisora de los Grandes Exitos" – 75) Larco 760, Miraflores, Lima. **L.P:** Dir. Gen: C. Palma S. Dir. Tec: R. Palma S.
76) Ca. 9, Chiclayo. **L.P:** Dir: A. J. C. Montjoy D. **Ann:** "La Voz del Norte para todo el Perú" or "La Emisora que está mas tiempo en su dial". **V.** by letter.
77) Arica 30, Iquitos. **L.P:** Dir: R. Cruzado. **Ann:** "Desde el Corazón de la Amazonia transmite R. Loreto, La Voz del Oriente Peruano" or "Transmite R. Loreto desde Iquitos".
78) Cas. 188, Tacna. **L.P:** Dir: J. S. Cáceros V. **Ann:** "Transmite R. Tacna y La Voz del Sur simultáneamente". **V.** by letter.
79) Apt. 1427, Lima. **L.P:** Dir: G. D. Brandt. Dir. Tec: A. Gonzales A. **Ann:** "En su receptor y en todas partes R. Central, la Emisora más Popular" – 80) Pucallpa. **L.P:** Dir: J. Reátegui B.
81) Nicolás de Pierola 1014, Lima. **L.P:** Dir. Gen: J. Cavero. Dir: J. C. Andrade. **Ann:** "Esta es OAX4N, R. Selecta de Lima, una emisora al servicio de la cultura musical del pais" .
82) S. Martin 251, Ica.
83) 28 de Julio 203, Ayacucho. **Ann:** "Transmite OAX5H en 1340kc, R. Ayacucho desde la ciudad de Ayacucho, Perú, Emisora afiliada a la organización de R. Victoria de Lima".
84) Altos Cine Talara, Oficina 201, Talara. **L.P:** Dir: M. H. Cornejo. **Ann:** "Transmite R. Talara en su frecuencia de 1130kc, onda larga, y en 9600kc, onda corta, con el sistema irradiante más completo del Perú" – 85) see 46).
86) Paseo Colón 299, Lima. **L.P:** Mgr: N. Arrunategui. **Ann:** "En 985kc transmite R. Expreso desde Lima, Perú".
87) Cuzco 850, Piura. **L.P:** Dir: J. Girón S.
88) 28 de Julio 1389, Lima. **Ann:** "En 1440kc Continente, el punto de la sintónia en Lima, Perú" – 89) Ca. Marquez 215, Cuzco.
90) Iquitos. **L.P:** Dir: B. Solsol E.

Medium Waves:
91) **R. Imperial,** Ayacucho 598, Cañete. **L.P:** Dir: R. Pachas.
92) **R. Chepen,** La Libertad. **L.P:** J. Tejada T.
93) **Gran Unidad Escolar Inca Garcilaso,** Cuzco.
94) **R. del Pacífico,** Apt. 4236, Lima.
95) **R. Sudamericana,** Independencia 565, Trujillo. **V.** by letter.
96) **R. Libertad,** Union 1038, Lima. **Ann:** "La Voz de la Juventud".
97) see 16) – 98) **R. Salcantay,** Triunfo 370, Cuzco. **L.P:** Dir: R. Campana – 99) **R. Marina,** Iquitos.
100) **R. Atalaya,** Camaná 975, Lima: 11.00–05.00.
101) **R. Latina,** San Martin 561, Tacna. **L.P:** Dir: C. Urday Banchero.
102) **R. Talara,** Talara – 103) **R. Chincha,** Los Angeles 222, Chincha.
104) **R. Jauja,** Junín 901, Jauja.
105) **R. Interamericana,** Chimbote. **L.P:** Dir: N. Arias L. **Ann:** "La Voz del Pacífico desde Chimbote".
106) **R. Sargento Lores,** Inspección General del Ejército, Iquitos.
107) **R. Abancay,** Abancay – 108) **R. Huancavelica,** Chacapoyas 104, Huancavelica – 109) **R. Mollendo,** Mollendo – 110) **R. Internacional,** Pisco – 111) **R. Santa Rosa,** Camaná 170, Lima. **Ann:** "Para Ud. transmite R. Santa Rosa en su frecuencia de 1490kc onda larga".
112) **R. Fessa,** Av. M. Benavides 777, Cañete. **L.P:** Dir. Gen: B. S.
113) **R. Tarma,** Huaraz 198, Tarma.
114) **R. Pacasmayo,** Junín 57, Pacasmayo.
voz de la provincia".
115) **R. Reloj,** Ocoña 484, Lima – 116) **R. Imperial,** Ruinas 426, Cuzco – 117) **R. Surperuana,** Arequipa – 118) **R. Cultural,** Universidad Nacional, Cuzco – 119) Apt. 46, Sicuani.
120) **R. Cien,** Camana 631, Lima – **L.P:** Dir: R. J. Ajello: 12.00–07.00 music, exc. six 5 min. newscasts.
There are other broadc. st's operating in Peru, but not included in official lists: **R. Huaral,** Huaral – **R. Faro,** Chimbote – **R. Regionalista,** Ica – **R. El Tiempo,** Santa Marta 310, Arequipa – **L.P:** Mgr: T. Borja V.

SURINAM

L.T: GMT÷3½ h – **Pr.L:** Dutch, Surinam language, Hindustani, Javanese, Chinese.
ALGEMENE VEREENIGING RADIO OMROEP (Comm.)
FI: By adv – **ADDR:** A.V.R.O.S, P.O. Box 720, Paramaribo. **Te:** 2566 – **L.P:** Chmn. of the Board of Dir's: E. Bruma. Dir. Tec: E. Emanuels. Ag. Dir: H. Axwijk.
STATIONS: 1035kc 289.9m 4kW
4852kc 62.00m 0.4kW – 15405kc 19.47m 0.35kW.
HOME SCE. on 1035/4852kc: 09.30–03.30 – **N: Dutch:** Every h on the h. **Surinam language** (Talkie Talkie): 03.30. **Hindi:** 19.50.
FOREIGN SCE. on 1035/4852/15405kc: Mo 01.30–02.00 "Surinam calls the Caribbean" (in English and Spanish), Tues 02.30–03.30 Special prgr. for the Neth. Antilles.
ANN: Sp: "Esta es Surinam, la AVROS, en Paramaribo, capital de Surinam, uno de sus vecinos en la America del Sur". Dutch: "Hier is R. Suriname de Avros op golflengten van..." – **INT-SIG:**



V. by letter. Rp. Records accepted.

RADIO APINTIE (Comm.)
ADDR: P.O. Box 1838, Paramaribo. **Te:** 5224. **Cable:** Fructomel.
STATION: 840kc 355m 1kW – **HOME SCE. in Dutch, Talkie-Talkie, English, Hindustani, Javanese, Chinese and French:** 09.30–02.30.
ANN: "R. Apintie, Paramaribo" – **INT-SIG:** The beat of the Apintie drum – **V.** by letter.

RADIO PARAMARIBO (Comm.)
ADDR: Neumannpad 32, Paramaribo. **Te:** 4131. **Cable:** Rapar – **L.P:** Dir. Gen: W. H. Lionarons.
STATION: 600kc 10kW – **HOME SCE. in Dutch, Talkie-Talkie, English, Hindustani, Javanese and Chinese:** 09.30–02.30.
FOREIGN SCE. in English and Spanish (Govt. Inf. Sce): Sun 16.00–16.30 "Operation Good Neighbourship" – Mo 01.45–02.15 "Calling our Caribbean Friends" – **ANN:** "R. Paramaribo Rapar, de stem van Suriname, op de 500m of 600kc". E: "R. Paramaribo Rapar, the voice of Surinam, operating on a freq. of 500m or 600kc".

URUGUAY

L.T: GMT÷3 h – **Pr.L:** Spanish.
DIRECCION DE RADIOCOMUNICACIONES, Montevideo. **L.P:** Dir: R. Buencristiano.

ASOCIACION NACIONAL DE BROADCASTERS URUGUAYOS (ANDEBU)

ADDR: Ca. Yi 1264, Montevideo. **Cable:** Andebu. **Te:** 84456 – **L.P:** Pres: Dr. J. Jimenez de Aréchaga. Secr: F. Raul Correa.
STATIONS: All st. pr. comm. exc. 7), 33), 34). *=inactive.
Short Waves: Call: CX——. Location: Montevideo exc. where indicated

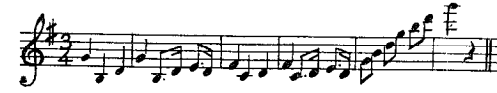
	Call	kc	m	kW	Name & h of tr.
1)	A2	6000	50.00	5	R. Sur: 10.00–03.00
2)	A30	6035	49.71	1	R. Nacional: 15.00–03.00
3)	A61	6045	49.63	10	El Espectador: 12.00–03.00
4)	A53	6055	49.55	5	La Voz de Melo, Melo: 10.00–03.00
5)	A3	6075	49.38	2.5	R. Ariel: 10.00–03.00
6)	A73	6115	49.06	1	R. Clarin: 11.00–02.00
7)	A4	6125	48.98	10	S.O.D.R.E: 13.00–03.10
8)	A20	6140	48.86	10	R. Monte Carlo: 10.00–03.00
9)	A13	6155	48.74	10	R. Carve: 14.00–18.00, 22.00–03.00
10)	A21	6170	48.62	1	R. Fenix: 14.00–16.00, 21.00–01.00
11)	A60	9515	31.53	10	R. Sarandi: 12.00–18.00
8)	A72	9595	31.27	10	R. Monte Carlo: 14.00–19.00
7)	A6	9620	31.19	20	S.O.D.R.E: 12.00–03.10
12)	A7	11735	25.56	5	R. Oriental: 10.00–04.00
3)	A19	11835	25.35	5	El Espectador: 10.55–03.00
11)	A68	11885	25.24	10	R. Sarandi: 16.00–17.00
7)	A10	11900	25.21	20	S.O.D.R.E: 12.00–03.10
4)	A64	15225	19.70	25	La Voz de Melo
7)	A18	15270	19.65	1	S.O.D.R.E: 12.00–03.10
11)	A70	15385	19.49	10	R. Sarandi: 01.00–03.00

Medium Waves: °=Short Wave.

	Call	kc	kW		Call	kc	kW
13)	CW1	550	4.5	4)	CW53	°1340	2.5/1
6)	CX58	°580	0.5	25)	CW41	1360	0.5
14)	CX4	610	5	26)	CX42	1370	2.5
7)	CX6	°650	50	27)	CW45	1390	1/0.5
15)	CW27	680	1/0.25	28)	CX140	1400	10/5
11)	CX8	°690	10/5	29)	CX44	1410	5
5)	CX10	°730	5/2.5	30)	CW43	1420	1/0.5
12)	CX12	°770	25	31)	CW25	1430	1
3)	CX14	°810	25	32)	CX46	1450	5/2.5
16)	CW23	820	1/0.5	33)	CW46B	1460	0.25
9)	CX16	°850	50	34)	CW46C	1460	0.03
3)	CX18	°890	10/5	35)	CX147	1470	1/0.5
8)	CX20	°930	10/5	36)	CW43B	1480	2
17)	CX22	970	1.5	37)	CX48	1490	5
9)	CX24	°1010	2.5	38)	CW47B	1510	0.1
7)	CX26	°1050	20	39)	CX152	1520	2
18)	CX28	1090	10/5	40)	CX50	1530	1.2
19)	CW31	1120	2/0.5	41)	CX155	1550	0.25
2)	CX30	°1130	10/5	42)	CW51	1560	0.5
1)	CX32	°1170	10/5	39)	CV156	1560	0.7
20)	CW33	1200	0.25	43)	CW52	1570	0.25
21)	CX34	1210	2.5	44)	CV157	1570	0.1
22)	CW35	1240	2/1	45)	CX157	1570	0.1
23)	CX36	1250	3.1	46)	CW54	1580	0.5
3)	CW37	°1260	1/0.25	47)	CV158	1580	0.1
7)	CX38	°1290	1	48)	CX159	1590	0.25
24)	CW39	1320	0.5/0.1	49)	CW56	1600	0.25
10)	CX40	°1330	0.5	50)	CV160	1600	0.1
				51)	CX160	1600	0.25

Short Waves:
1) Compañia Uruguaya de Publicidad S.A, Yi 1383, Montevideo – **L.P:** Dir: J. L. E. Amoroso – **D.Prgr:** CX32 **R. Sur.**
2) O.R.O.S.A, Plaza Independencia 846, Montevideo – **L.P:** Dir: M. Suirski – **D.Prgr:** CX30 **R. Nacional** – V. by QSL-card.
3) Difusoras del Uruguay S.A, Soriano 1287, Montevideo – **L.P:** Dir: V. Soliño – **D.Prgr:** CX14 **El Espectador:** 09.58–03.00; CX18 **R. Libertad Sport:** 10.50–03.00; CW37 **Difusora Rochense,** Dr. Julián Graña, Rocha: 11.00–01.00(Sat/Sun 03.00).
4) Montevideo 721, Melo – **L.P:** Dir: R. D. Lucas – **D.Prgr:** CW53 11.00–03.00.
5) Olimar 1472, Montevideo – **L.P:** Dir: J. U. Pierri – V. by QSL-card.
6) Colonia 1487, Montevideo. **Te:** 405841 – **Fi:** By adv – **Ad:** every 15 min – **L.P:** Dir: Ing. F. D. Tourreilles. Dir. Tec: G. Duarte – **D.Prgr:** N: 11.00, 13.00, 15.00, 17.00, 19.00, 21.00, 23.00, 01.00 – **Wrp:** D 16.00 – **Ann:** "Transmite CX58 CLARIN, 58 en su dial, y su onda corta CXA73 en la banda de 49 metros, República Oriental del Uruguay" – **F.Pl:** Increase in power – V. by letter.
7) Mercedes 823, Montevideo. **Cable:** Sodre – **L.P:** Dir: J. Z. Avala Carvalho – **D.Prgr:** CX6/CX26: 12.00–03.10. CX38: 21.00–03.00 – N: 13.00, 15.00, 20.00, 24.00, 02.55 – **Ann:** "Servicio Oficial de Difusion Radio Electrica Montevideo con sus emisoras..." – **Int-Sig:** First movements of "Campo" – V. by QSL-card.
8) 18 de Julio 1224, 4° piso, Montevideo. **Cable:** Montecarlo – **L.P:** Dir. Gen: H. Romay S. – **D.Prgr:** CX20 930kc: 10.00–03.00.
9) Mercedes 973, Montevideo. **Cable:** Sadrep – **L.P:** Dir. Gen: R. Fontaina, J. E. de Feo. Dir. Tec: A. Salvo – V. by QSL-card.
10) Rio Branco 1366, Montevideo – **L.P:** Dir: J. J. Rabassa – **D.Prgr:** CX40: 10.00–05.00(Sat 06.00).
11) Corporación de Publicidad S.A. Bulevar Gral. Artigas 1515, Montevideo – **L.P:** Dir: S. Mesano – **D.Prgr:** CX8: 08.00–05.00. N: every h on the h – V. by letter.
12) Olimar 1364, Montevideo. **Te:** 81-483, -81484, 9-7412 – **L.P:** Dir. Gen: Dr. L. A. Artola. Dir. Tec: A. Razzetti – **D.Prgr:** 10.00–04.00. N: 14.00, 16.00, 20.00, 23.00, 24.00, 01.00, 02.30, 03.30. **Portuguese:** Mon through Fri 23.10 "Música Brasileña" – **Ann:** "Transmiten CX12 y CXA7, emisoras de R. Oriental de Montevideo, Uruguay – **Int-Sig:** Vibraphone or Xylophone – V. by QSL-card and letter.

Medium Waves:
13) **R. Colonia,** Alberto Mendez 164, Colonia.
14) **R. Rural,** 18 de Julio 1513, Montevideo – **L.P:** Dir: A. M. Lázaro – **D.Prgr:** 10.00–03.00(Sat & Sun 06.00) – **N:** every h on the h – **Int-Sig:**



15) **R. Tabaré,** Uruguay 678, Salto – **L.P:** Dir: J. M. Gestoso – **D.Prgr:** 10.00–03.00 – 16) **R. Cultural,** Lavalleja 42-48, Salto – **L.P:** Dir: Ramón J. Vinci – **D.Prgr:** 10.00(Sun 10.30)–03.00.
17) **R. Universal,** Soriano 1217, Montevideo – **L.P:** Dir: O. Porrás – **D.Prgr:** 10.00–03.00(Sat 05.00).
18) **R. Imparcial,** Av. Algraciada 1708, Montevideo – **L.P:** Dir: W. Figueira M – **D.Prgr:** 24 h – V. by QSL-card.
19) **R. Salto,** Brasil 715, Salto – **L.P:** Dir: S. Pera – **D.Prgr:** 11.00–03.00 – V. by letter.
20) **Difusora Florida,** Gallinal 696, Florida – **L.P:** Dir: U. H. Ucuña – **D.Prgr:** 13.00(Sun 12.30)–01.00 – 21) **R. Artigas,** Av. Millan 2370, Montevideo – **D.Prgr:** 12.30–02.30.
22) **R. Paysandú,** 18 de Julio 1044, Paysandú – **L.P:** Dir: A. M. Ordoqui – **D.Prgr:** 11.00–03.00 – 23) **Broadc. Centenario del Uruguay,** Olimar 1364, Montevideo – V. by letter.
24) **La Voz de Paysandú,** 18 de Julio 614, Paysandú – **L.P:**Dir: A. M. Penna – **D.Prgr:** 11.00–03.00 – 25) **Broadc. San José,** Treinta y Tres 890, San José – **D.Prgr:** 13.00–02.00.
26) **R. del Pueblo,** Mercedes 1805, Montevideo – **L.P:** Dir: R. Baz – **D.Prgr:** 11.15–03.00 – 27) **Difusora Treinta y Tres,** Pablo Zufriategui 230, Treinta y Tres – **L.P:** Dir: A. Pinho – **D.Prgr:** 10.50–03.00.
28) **R. Zorrilla de San Martín,** 18 de Julio 304/10, Tacuarembó.
29) **R. Austral,** 18 de Julio 965, 2° piso, Montevideo – **L.P:** Dir: Raúl Beisso C – **D.Prgr:** 11.55(Sun 08.25)–02.00 – 30) **R. Lavalleja,** José E. Rodó 530, Minas – **L.P:** Dir: J. R. Volante – **D.Prgr:** 12.55–02.00.
31) **R. Durazno,** 18 de Julio 592, Durazno – **L.P:** Dir: R. Evangelisti – **D.Prgr:** 14.00–00.30 – 32) **R. América,** Plaza Independencia 846, Montevideo – **L.P:** Dir: M. Svirsky – **D.Prgr:** 13.00(Sun 12.00)–17.00, 19.00–01.00 – 33) **Liceo de Dolores,** Liceo de Dolores, Soriano.
34) **Liceo de San Carlos,** San Carlos, Maldonado – **D.Prgr:** 21.00–24.00.
35) **R. Montevideo,** Rio Branco 1366, Montevideo – **D.Prgr:** 11.00–02.00 – 36) **R. Internacional,** Sarandi 792, Rivera – **L.P:** Dir: W. Figueira M – **D.Prgr:** 09.00–03.00 (Sat/Sun 24 h).
37) **R. Femenina,** 18 de Julio 1333, 2° piso, Montevideo – **L.P:** Dir: Sara Vazquez – **D.Prgr:** 13.00–01.45.
38) **R. Beina,** Nueva Helvetia – **L.P:** Dir: M. A. Ravazzani – **D.Prgr:** 10.00–16.30, 18.00–23.00 – 39) **R. Cerro Largo,** Rio Branco 660, Melo.
40) **R. Independencia,** Paysandú 1186, Montevideo – **L.P:** Dir: A. Rupenián – **D.Prgr:** 08.00–03.00 – 41) **R. Carmelo,** 19 de Abril 444, Carmelo – **L.P:** Dir: U. Lobecio P – **D.Prgr:** 11.00–03.00.
42) **R. Maldonado,** Isla de Gorriti 819, Maldanodo (or 18 de Julio 1561, Montevideo) – **L.P:** Dir: H. Lamaison – **D.Prgr:** 12.00–02.00.
43) **R. Litoral,** España 1157, Fray Bentos – **L.P:** Dir: G. Arizti – **D.Prgr:** 12.00–02.00.
44) **R. Bella Union,** Dept. Artigas – **L.P:** Dir: W. Othaix – **D.Prgr:** 11.00–03.00 – 45) **R. Canelones,** Canelones – **L.P:** Dir: W. Espiga – **D.Prgr:** 11.30–02.00 – 46) **Emisora del Este,** Domingo Pérez 491, Minas – **L.P:** Dir: C. R. Falco – **D.Prgr:** 10.30–02.00. N: 10.30, 11.15, 12.45, 14.00, 15.00, 16.00, 21.30, 22.30, 24.00, 00.15.
47) **R. Rivera,** Monseñor Vera 1132, River – **L.P:** Dir: D'Artagnán Pedezert – **D.Prgr:** 10.30–17.00, 20.00–00.30.
48) **Emisora Real de San Carlos,** Av. Gral. Flores 468, Colonia – **L.P:** Dir: Dr. E. Geimonart – **D.Prgr:** 10.00–03.00 – 49) **Difusora Soriano,** Florida 568, Mercedes – **L.P:** Dir: M. M. Racioppi – **D.Prgr:** 10.00–03.00 – 50) **R. Atlantica,** Parada 3, Punta del Este – **D.Prgr:** 11.30–03.00 – 51) **R. Rio Branco,** Rio Branco – **L.P:** Dir: R. D. Lucas.

VENEZUELA

L.T: GMT÷4 h – **Pr.L:** Spanish.

MINISTERIO DE COMUNICACIONES

ADDR: Direccion de Telecomunicaciones, Division de Radiodifusion.

CAMARA VENEZOLANA DE LA INDUSTRIA DE LA RADIO Y TELEVISION:

ADDR: Apt. de Correos 3155, Caracas. **Cable:** Camradio. **Te:** 425805 – **L.P:** Pres: F. Cardona Moreno.
STATIONS: All st's comm. exc. 49) (Go.).

Short Waves: Call: YV—.

	Call	kc	m	kW	Name	h of tr.
1)	PL	2340	128.4		R. Nueva Esparta, Porlamar	
2)	QG	2360	127.1	1	R. Carúpano	09.30–03.30
3)	QP	2370	126.1		R. Puerto La Cruz	
4)	LG	2440	122.9	1	R. Girardot, Maracay	
5)	OX	2450	122.5		R. Los Llanos, Calabozo	
6)	NI	2470	121.5	0.3	R. Carorá	11.30–02.30
7)	PD	2480	120.9		La Voz del Avila, Caracas	
8)	QL	3255	92.15	0.5	La Voz del Tigre	11.30–03.30
9)	RZ	3255	92.15		R. Nirgua	
10)	MC	3275	91.60	1	R. Mara, Maracaibo	10.30–03.30
11)	LE	3285	91.32	1	R. Puerto Cabello	10.00–04.00
12)	OG	3295	91.10	0.7	R. Trujillo	11.00–02.30
13)	KX	3305	90.77	3	La Voz de la Patria, Caracas	10.30–03.30
14)	LI	3315	90.50	1	R. Maracay	11.30–03.30
15)	RA	3325	90.22	0.6	R. Monagas, Maturín	11.25–03.30
16)	QC	3335	89.95	2	Ecos del Oriñoco, Ci. Bolivar	10.20–03.30
17)	OS	3345	89.68	7.5	R. Continente, Caracas	
18)	OS	3345	89.68	1	R. Libertador, Caracas	10.30–04.30
19)	LC	3355	89.41	1	R. Valencia	10.30–03.30
20)	PM	3365	89.15		R. Tovar, Tovar Mérida	
21)	MI	3375	88.89	0.6	La Voz de la Fé, Maracaibo	10.30–03.30
22)	QI	3385	88.63	1	R. Barcelona	09.30–03.30
23)	OJ	3395	88.37	1	R. Universidad, Mérida	10.30–03.30
24)	KY	4760	63.03	0.5	Emisora Vargas, La Guaira	10.30–03.30
25)	NW	4770	62.89	0.3	Ondas del Caribe, Punto Fijo	11.30–03.30
26)	LA	4780	62.76	1	La Voz de Carabobo, Valencia	10.30–04.00
27)	QN	4790	62.63	5	Ondas Porteñas, Pto. La Cruz	10.25–04.30
28)	ME	4800	62.50	10	Ondas del Lago, Maracaibo	10.30–03.30
29)	MG	4810	62.37	1	R. Popular, Maracaibo	10.30–03.30
30)	RC	4820	62.24		La Voz de Apure, S. Fernando de Apure	11.30–02.30
31)	OA	4830	62.11	5	La Voz del Táchira	10.30–03.30
32)	OI	4840	61.98	1	R. Valera	11.30–03.30
33)	MS	4850	61.86	1	R. Universo, Barquisimeto	10.30–03.30
34)	PA	4860	61.75	1	R. Yaracuy, S. Felipe	10.30–03.30
35)	KP	4870	61.60	2	R. Tropical, Caracas	
36)	KF	4880	61.48	7.5	Ondas Populares, Caracas	10.30–04.30
37)	KB	4890	61.35	5	R. Dif. Venczuela, Caracas	10.30–04.30
38)	QE	4900	61.22	1	R. Cumaná	10.30–03.30
39)	MK	4910	61.10	1	R. Cabimas	10.30–03.30
40)	KR	4920	60.99	7.5	R. Caracas	10.30–05.30
41)	OT	4930	60.85	0.5	R. Junín, S. Cristóbal	10.30–04.30
42)	MO	4940	60.73	2	R. dif. Occidental, Barquisimeto	10.30–03.30
43)	MM	4950	60.60	1	R. Coro	10.30–03.30
44)	QA	4960	60.48	1	R. Sucre, Cumaná	10.30–03.30
45)	LK	4970	60.36	10	R. Rumbos, Caracas	09.30–04.30
46)	OC	4980	60.25		Ecos del Torbes, S. Cristóbal	10.30–03.30
47)	MQ	4990	60.12	15	R. Barquisimeto	12.00–03.30
48)	TE	5010	59.88		R. Valles del Tuy, Ocumare del Tuy	
49)	KO	5020	59.76	10	R. Nacional, Caracas	
17)	KM	5030	59.64	7.5	R. Continente, Caracas	10.00–04.00
50)	MA	5040	59.55	1	Ecos del Zulia, Maracaibo	10.30–04.30
51)	KD	5050	59.41	5	R. Cultura, Caracas	10.30–03.30
52)	NL	6000	50.00		R. Miranda, Los Teques	
49)	KO	6170	48.62	10	R. Nacional, Caracas	10.30–04.30
47)	XJ	9510	31.55	15	R. Barquisimeto	10.30–04.30
°)	MZ	9530	31.48	1	Various tr, Maracaibo	12.00–03.30
°°)	OM	9570	31.35	1/10	Various tr, S. Cristóbal	12.00–03.30
46)	PG	9640	31.12		Ecos del Torbes, S. Cristóbal	10.30–03.30

°) Common freq. for 28,) 29), 50), 59) – °°) Common freq. for 31), 41).

Medium Waves: Call: YV—. °=Short Wave. ¹=also FM.

	Call	kc	kW		Call	kc	kW		Call	kc	kW
49)	KZ	550	10	54)	LP	810	10	61)	NM	1000	1
45)	LX	°560¹	50/100	52)	LT	°830	10	62)	PC	1010	
17)	KL	°590¹	20	55)	MY	840	1	44)	QT	°1020	10
53)	NO	610	10	19)	LD	°850	10	63)	NZ	1030	0.3
49)	KA	°630	5	56)	QF	860	1	18)	QD	°1030¹	2
27)	QO	°650	10	41)	OL	°870	10	64)	ON	1040	10
4)	LH	°660	50	18)	KU	880	10	35)	RT	°1050	10
45)	LL	°670¹	10	57)	LW	890	10	65)	LN	1060	0.3
47)	MR	°680	15	49)		900		24)	KW	°1070	1
26)	LB	°690	1	58)	PF	910		66)	NG	1070	1
29)	MH	°700	10	1)	QX	°920	1	22)	QJ	°1080	1
13)	KY	°710	10	14)	LJ	°930	1	33)	NT	°1090	10
38)	OR	°720	10	2)	QB	°940	10	51)	KE	°1100	10
9)	RY	°730		36)	KG	°950	5	67)	NN	1110	10
40)	KS	°750	10	15)	RB	°960	10	28)	MF	°1120	10
3)	QQ	°770	0.25	59)	ND	°970	10	68)	NA	1130	0.3
46)	OD	°780	10	8)	MQ	°980	10	48)	TD	°1130	10
37)	KC	°790	5	60)	LR	990	10	6)	MU	°1140¹	1.25
50)	MB	°800	10	31)	OB	°1000¹	10	10)	MD	°1150	1
69)	QV	1170	2	11)	LF	°1290¹	1	85)	NT	1420	
70)	OV	1180		76)	KE	1300	1	12)	OF	°1420	0.5
71)	OR	1180		77)	NS	1300		86)	NJ	1430	0.5
72)	RE	1190	0.25	78)	QY	1310	0.6	87)	FR	1440	0.5
7)	OZ	°1200		79)	OE	°1320	1	23)	OJ	°1450	1
43)	MN	°1210	1	5)	OY	°1330		25)	MV	°1460	1
32)	OH	°1230	0.25	80)	QU	1340	0.1	30)		1470	
73)	LQ	1240	1	81)	NH	1350	0.5	20)	OP	°1480	
74)	NU	1250		82)	LO	1370	1	88)	OW	°1490	
39)	ML	°1250	1	83)	QZ	1390	0.2	34)	PB	°1490	
75)	OU	1270		21)	MJ	°1400	0.6				
42)	MP	°1280	2	84)	NV	1410					

45) YVLL 670kc: SSB (Single Side Band) every Sat 21.30–22.30. St's 8), 27), 33), 60), 67), 79) belong to 17). St's 2), 22), 44) belong to 45).

Continental Electronics, USA: delivered mw-tr's: YVKL 10kW, YVLL 2×10kW, R. America 10kW, R. Rumbos 10kW; 1×10kW sw-tr. to YVKX.

The Marconi Company Ltd, GB: delivered sound tr's: 1×2, 1×20kW (R. Continente), 1×10kW (R. Libertador).

Short Waves:

1) Porlamar – 2) Carúpano – 3) Puerto La Cruz – 4) C.A. R. Girardot, Maracay – 5) Calabozo – **L.P:** Dir: M. O. Sosa C.

6) Ca. Bolivar 58, Carora, Estado Lara. **Te:** 1121 – **L.P:** Dir: C. J. Gonzalez – **D.Prgr:** 11.30–02.30 – **Ann:** "R. Carora YVMU 1140kc onda larga, YVNI 2470kc y YVMU/FM 31.5Mc frecuencia modulada, transmitiendo desde Carora, capital del distrito Torres, Estado Lara, República de Venezuela, Patria del Libertador" – **Int-Sig:** Xylophone – **F.Pl:** 1140kc 10kW – **V.** by letter.

7) Caracas – 8) El Tigre (Anzóategui) – 9) Nirgua – **L.P:** Owner: F. Falkenagen – 10) Apt. 100, Maracaibo – **L.P:** Dir: L. A. Goveá.

11) Apt. 4, Pto. Cabello. **Te:** 33-88 – **L.P:** Dir. Gen: S. Guevara Villalba. Dir. Tec: P. Curvelo – **Ann:** "Esta es R. Puerto Cabello, una Emisora al servicio de su región transmitiendo desde Puerto Cabello, Venezuela, Patria del Libertador y Pais Democratico de America. R.P.C. es otra Emisora del Gran Circuito Nacional RT" – **D.Prgr: N:** 10.40, 16.40 – **V.** by letter – **F.Pl:** 10kW – **FM:** YVLF/FM 90.5Mc, YVLE/FM 102.7Mc.

12) Ca. Independencia 200, Trujillo – **L.P:** Dir: P. J. Torres.

13) C.A. La Voz de la Patria, Caracas – **V.** by letter.

14) Maracay – **L.P:** Owner: Armezzano & Vásquez.

15) Apt. 14, Maturín – **L.P:** Dir. Gen. & Dir. Tec: L. J. Arreaza A – **D.Prgr: N:** 12.15, 16.30, 22.30, 02.30 – **V.** by letter. Re. in Sp, E.

16) Apt. 47, Ci. Bolivar. **Te:** 20413 – **L.P:** Dir. Gen: E. Bellorin A – **D.Prgr: N:** 11.30, 16.30, 23.00, 03.00 (BBC). **Italian:** D 17.00–17.30. **Music of USA** (ann. in English): D 21.00–21.30 – **Ann:** "Con el avanee económico y cultural de la Guayana transmite Ecos del Oriñoco un punto de amistad en su dial, Emisoras YVOC 1030kc onda larga, YVOD 3335kc onda corta en banda tropical de 90 metros y YVOC-FM...en Ci. Bolivar, Venezuela, Patria de El Libertador" – **V.** by letter with card – **Pub:** Prgr. schedule free on request.

17) Apt. 866, Caracas. **Cable:** Continente. **Te:** 543411 – **L.P:** Pres: J. F. Rodríguez. Dir. Tec: A. Espino Baez – **D.Prgr: N:** 10.30, 16.30, 02.30 – **Ann:** "Transmite R. Continente, la emisora más potente del pais YVKL 590kc, YVKM 5030kc desde Caracas, Venezuela, America del Sur" – **V.** by letter. Re. in Sp, E.

18) Palma Miracielos, Edif. "Henry Clay", 2do piso, Caracas. **Te:** 41-49-73 – **L.P:** Dir. Gen: L. Raymondi Bello. Dir. Tec: H. Degwitz. Dir. English prgr: C. Nash – **D.Prgr: N. in Spanish:** every half h. Special newscasts W 16.00, 21.30 – **English:** 11.30–13.00, 23.00–23.30 – **Portuguese:** 17.30–18.00.

19) Valencia – **L.P:** Dir: M. Aché – 20) Tovar Mérida.

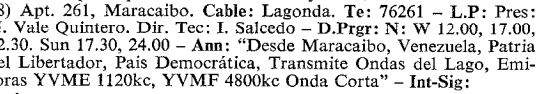
21) Ca. 64 No. 3E-50, Maracaibo – **L.P:** Dir. Gen: O. Soto L. Dir. Tec: J. Marcano C – **D.Prgr: German:** Mo 00.30–01.30.

22) Apt. 27, Barcelona – **F.Pl:** YVQJ 10kW – 23) Apt. 74, Mérida – **L.P:** Owner: Enrique O. Dubuc – 24) La Guaira – **L.P:** Dir: P. Sosa Gusmán – 25) Punto Fijo – **L.P:** Owner: A. J. Isturiz.

26) Valencia – **V.** by letter.

27) Ca. Libertad 46, Puerto La Cruz. **Cable:** Onport – **D.Prgr: N:** 11.00, 16.45, 22.30, 04.00. **English:** D 03.15 – **Ann:** "Ondas Porteñas – la emisora que impera en Oriente" – **V.** by letter.

28) Apt. 261, Maracaibo. **Cable:** Lagonda. **Te:** 76261 – **L.P:** Pres: N. Vale Quintero. Dir. Tec: I. Salcedo – **D.Prgr: N:** W 12.00, 17.00, 02.30. Sun 17.30, 24.00 – **Ann:** "Desde Maracaibo, Venezuela, Patria del Libertador, Pais Democrática, Transmite Ondas del Lago, Emisoras YVME 1120kc, YVMF 4800kc Onda Corta" – **Int-Sig:**



V. by QSL-card. Re. in Sp, E.

29) Apt. 347, Maracaibo – **L.P:** Dir: J. Higuera M – **V.** by QSL-card.

30) Apt. 14, San Fernando Apure.

31) Apt. 37, San Cristóbal. **Te:** 11002 – **L.P:** Dir. Gen. & Dir. Tec: J. M. Díaz González – **D.Prgr: N:** 10.30, 11.30, 17.00, 22.30, 00.50,

Venezuela

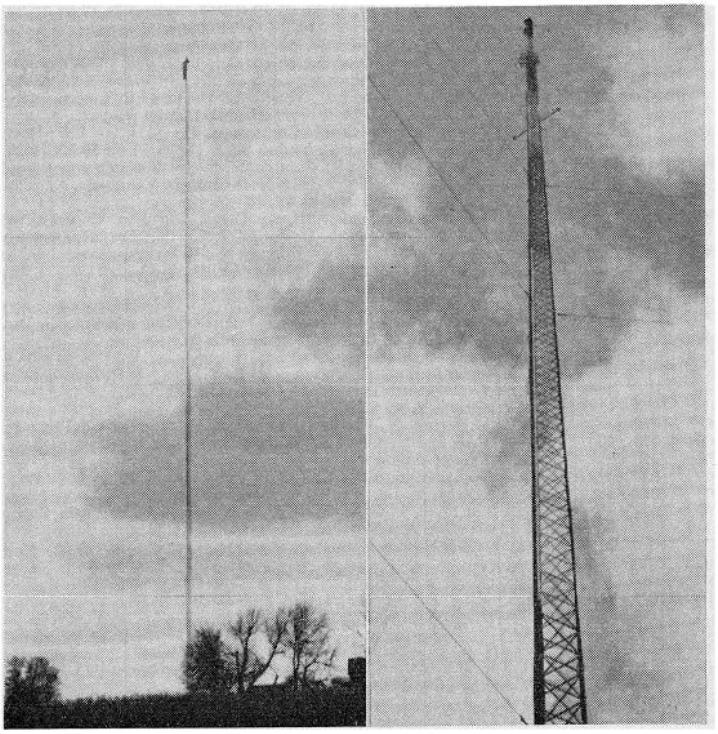
02.00, 03.15 – **International Sce: Dutch:** Wed, Fri 02.30–03.00 – **Ann:** "La Voz del Tachira, YVOB 100kc Onda Larga, YVOA 4830kc Onda Corta y YVOM 9570kc Banda Internacional de 31mtr; FM 88.3 y 98.3Mc por segundo, desde San Cristóbal, en Venezuela, Patria del Libertador y Pais Democrático de America" – **V.** by QSL-card or letter. **Re.** in Sp, E.
32) Ca. Bolivar 54, Valera – **L.P:** Dir: J. Febres J.
33) Apt. 76, Barquisimeto – **V.** by letter – 34) San Felipe.
35) San Jacinto 9, Caracas – **Ann:** "En cualquier sitio R. Tropical y su gran Circuito Nacional R.C." – **V.** by QSL-card.
36) Edif. Radio Centro, Apt. 2057, Caracas. **Te:** 418971 – **V.** by QSL-card.

37) Cipreses a Miracielos 1, Caracas – **D.Prgr: German:** Mo 00.30–01.00 – **Ann:** "Radiodif. Venezuela – máxima en potencia y calidad – transmitiendo desde Caracas, Venezuela, cuna del Libertador".
38) Cumaná – **L.P:** Dir. Gen: A. J. Isturiz.
39) Ca. Democracia, Cabimas – **V.** by letter.
40) Coraven C.A, Barcenas a Rio, Caracas. **Cable:** Coraven. **Te:** 418971 – **L.P:** Dir. Gen: A. Espina – **D.Prgr: N:** Every half h from 11.30 to 03.00 – **Ann:** "R. Caracas" – **V.** by QSL-card or letter. **Re.** in E, Sp – 41) Apt. 220, San Cristóbal – **L.P:** Dir: P. Vivas Arellano.
42) Apt. 76, Barquisimeto – **L.P:** Dir. Prgr: P. R. Calderon – **V.** by letter.
43) Comercio y Monzón 77, Coro – **L.P:** Dir. Gen: R. Leyba. Dir. Tec: V. J. Roca – **D.Prgr: N:** 12.30, 16.30, 23.30 – **Folklore Music:** 10.30, 17.00 – **Int-Sig:** Opens and closes with the march "Los Tres Colores" and the Nat. Anthem – **V.** by letter.
44) Apt. 26, Cumaná – **V.** by letter.

45) Apt. 2618, Caracas. **Te:** 415963 – **L.P:** Dir. Gen: N. Colmenares. Dir. Tec: A. Gulbis – **D.Prgr: N:** 10.00–12.00, 16.00–17.00, 03.30–04.00 – **Ann:** "Transmite R. Rumbos, La Emisora de Venezuela, Cadena Nacional..." – **Int-Sig:** Gong – **V.** by QSL-card or letter. St's transmitting in chain with R. Rumbos: 2), 22), 44), 67).

46) Ca. 9-55, Apt. 152, San Cristóbal – **L.P:** Dir: J. J. Mora F. Dir. Tec: J. A. Lugo Blanco – **D.Prgr:** W 10.30–03.30. Sun 11.30–01.30. **N:** 11.00, 16.30, 18.20, 19.30, 22.30, 00.30, 03.15 – **Ann:** "Desde San Cristóbal, Venezuela, Patria del Libertador, transmite Ecos del Torbes, su Emisora, Predilecta. Estaciones YVOC 4980kc onda corta, 780kc onda larga y YVPG 9640kc banda internacional de 31 metros" **V.** by letter.
47) Apt. 576, Barquisimeto. **V.** by QSL-card – 48) Ocumare del Tuy.
49) P.O. Box 3979, Caracas. **Te:** 720661 – **L.P:** Dir. Gen: Dr. A. Pizani P. Dir. Tec: L. Linares C. Dir. Eng. Prgrs: G. Artiles – **D.Prgr:** YVKZ: 12.30–04.30 – **V.** by QSL-card – 50) Apt. 37, Maracaibo. **Cable:** Ecozulia – **L.P:** Gen. Mgr: A. Baralt L – **V.** by QSL-card.
51) Apt. 1931, Caracas. **Te:** 41-09-76 – **L.P:** Dir. Gen: I. Neri – **D.Prgr: N:** 10.45, 16.30, 22.30 – **Italian:** 01.30–03.30 – **Ann:** "En el año...de nuestra independencia, desde Caracas, Venezuela, Cuna de El Libertador, transmite R. Cultura..." – **V.** by QSL-card – **F.Pl:** 20kW tr – 52) Los Teques – **L.P:** Dir: A. Landaeta.

Medium Waves:
53) **R. Libertad,** Cabimas – 54) **R. 810,** Valencia – 55) **R. Cronos,** Apt. 76, Barquisimeto – 56) **R. Bolivar,** Ci. Bolivar
57) **R. America,** Valencia – **L.P:** Dir: P. Bernardo Heredia.
58) **R. Aeropuerto,** Maiguetia – 59) **R. Catatumbo,** Maracaibo.
60) **R. Central,** Maracay – 61) **R. Moron,** Morón.
62) **R. Aragua,** Cagua – 63) **R. Calendario,** P.O. Box 789, Maracaibo.
64) **R. Los Andes,** Mérida – 65) **R. Guárico,** San Juan de los Morros.
66) **R. Lagunillas,** Lagunillas – 67) **R. Punto Fijo,** Ca. Ecuador, Altos, Edif. Rofer, Punto Fijo – **D.Prgr:** 10.30–04.30.
68) **Ondas de los Médanos,** Coro – 69) **R. Acarigua,** Acarigua.
70) **R. Perijá,** Machiques – 71) **R. Maturín,** Maturín – 72) **R. Barinas,** Barinas – 73) **La Voz de la Victoria,** La Victoria – **L.P:** Dir: R. M. Marin – 74) **R. Caroní,** San Félix – 75) **Ondas Panamericanas,** El Vigía.
76) **R. Crono Radar,** Av. General Paéz, El Paraiso, Caracas.
77) **R. Reloj,** Maracaibo – 78) **R. Guanara,** Guanara.
79) **R. San Cristóbal,** Apt. 374, San Cristóbal. **Te:** 14300. **Cable:** Radiostobal – **L.P:** Dir. Gen: C. Antonio Calerón. Dir. Tec: R. Carvajal – **D.Prgr: N:** W 12.20, 14.45, 15.50, 17.30, 19.30, 21.30, 00.15 – **Ann:** "Estaciones YVOE, 1320kc y YVOM, Banda Internacional de 31m, transmitiendo desde San Cristóbal, Venezuela, Patria del Libertador, pais democratico de América" – **V.** by letter. Records accepted.
80) **R. San Carlos,** San Carlos – 81) **Ondas del Escalante,** Santa Bárbara del Zulia – 82) **R. dif. La Pascua,** Ca. Real 17, Valle de La Pascua.
83) **La Voz de Anaco,** Anaco – 84) **R. dif. Oriental Zulia,** Güiria – 85) **R. Caucagua,** Caucagua. 86) **R. Progreso,** Bachaquero.
87) **R. Orituco,** Altagracia de Orituco – 88) **R. Boconó,** Boconó.



ROHN COMMUNICATION TOWERS

Design — Rohn Towers are of the soundest and best engineered designs. Rohn Towers are available in welded or "Rigid-Tube" (K.D.) design for export shipment.

Construction — Rohn Towers are precision built for accuracy, sturdiness and dependability. All steel is of highest quality for maximum structural strength and "hot-dipped" galvanized after tower construction.

Applications — Rohn communication towers are suitable for many types of light and heavy-duty communication work. These installations are in use in all types of communication systems around the world. They cover radio and TV broadcasting, microwave, radar, mobile-radio, relay systems and various other uses. There is a ROHN tower to meet your specific requirements.

Your inquiries are welcomed and engineered proposals will be gladly submitted without obligation upon advice of your requirements. Descriptive literature and technical data is available upon request.

Rohn Exclusive Export Sales Representative

MART HALLER INC.

P.O. BOX 1208
MIAMI, FLORIDA-33101, U.S.A.
CABLE: "MALLER"

WORLD TELEVISION

The principal CCIR* television systems:

Definition refers to the standard which is normally stated in terms of the number of lines which make up the image. Reference in the following surveys is made throughout merely to 405 lines, 525 lines, 625 lines, 625 lines (OIRT**) and 819 lines respectively.

Number of lines per picture	405	525	625	819
Video bandwidth (Mc/s)	3	4	5	10.4
Channelwidth (Mc/s)	5	6	7	14
Sound carrier relative to vision carrier	÷3.5	+4.5	+5.5	÷11.15
Sound carrier relative to edge of channel	+0.25	÷0.25	÷0.25	+0.10
Interlace	2/1	2/1	2/1	2/1
Line frequency (c/s)	10.125	15.750	15.625	20.475
Field frequency (c/s)	50	60	50	50
Picture frequency (c/s)	25	30	25	25
Sense of vision modulation	Positive	Negative	Negative	Positive
Level of black as percentage of peak carrier	30	75	75	25
Sound modulation	AM	FM	FM	AM

* The International Radio Consultative Committee.

**The characteristics are the same as 625 lines exc. for a difference in bandwidth: video bandwidth 6Mc, channelwidth 8Mc, sound carrier relative to vision carrier +6.5Mc.

The following pages give you the data for the different TV stations of the world. The channel is indicated by a letter followed by a figure. The letter indicates the technical data of the systems which are in use (A: American, B: British etc.) and the figure is the channel number.

The power for vision and sound are indicated by a fraction, the numerator indicating the number of kW (ERP) for vision and the denominator for sound, for example 6/1.5 means vision 6kW ERP and sound 1.5kW ERP.

Differences in Belgian TV from resp. CCIR 625 and French 819:	CCIR 625	Belgian 625	French 819	Belgian 819
Video bandwidth (Mc)			10.4	5
Channelwidth (Mc)			14	7
Sound relative to vision			÷11.15	+5.5
Sound relative to edge of ch.			+0.10	÷0.25
Vision modulation	Negative	Positive		
Level of black as percentage of peak carrier	75	25		
Sound modulation	FM	AM		

United States of America. Number of lines: 525.

ch	Mc/s	ch	Mc/s	ch	Mc/s
A-2	55.25/ 59.75	A-28	555.25/559.75	A-56	723.25/727.75
A-3	61.25/ 65.75	A-29	561.25/565.75	A-57	729.25/733.75
A-4	67.25/ 71.75	A-30	567.25/571.75	A-58	735.25/739.75
A-5	77.25/ 81.75	A-31	573.25/577.75	A-59	741.25/745.75
A-6	83.25/ 87.75	A-32	579.25/583.75	A-60	747.25/751.75
A-7	175.25/179.75	A-33	585.25/589.75	A-61	753.25/757.75
A-8	181.25/185.75	A-34	591.25/595.75	A-62	759.25/763.75
A-9	187.25/191.75	A-35	597.25/601.75	A-63	765.25/769.75
A-10	193.25/197.75	A-36	603.25/607.75	A-64	771.25/775.75
A-11	199.25/203.75	A-37	609.25/613.75	A-65	777.25/781.75
A-12	205.25/209.75	A-38	615.25/619.75	A-66	783.25/787.75
A-13	211.25/215.75	A-39	621.25/625.75	A-67	789.25/793.75
		A-40	627.25/631.75	A-68	795.25/799.75
UHF Channels		A-41	633.25/637.75	A-69	801.25/805.75
A-14	471.25/475.75	A-42	639.25/643.75	A-70	807.25/811.75
A-15	477.25/481.75	A-43	645.25/649.75	A-71	813.25/817.75
A-16	483.25/487.75	A-44	651.25/655.75	A-72	819.25/823.75
A-17	489.25/493.75	A-45	657.25/661.75	A-73	825.25/829.75
A-18	495.25/499.75	A-46	663.25/667.75	A-74	831.25/835.75
A-19	501.25/505.75	A-47	669.25/673.75	A-75	837.25/841.75
A-20	507.25/511.75	A-48	675.25/679.75	A-76	843.25/847.75
A-21	513.25/517.75	A-49	681.25/685.75	A-77	849.25/853.75
A-22	519.25/523.75	A-50	687.25/691.75	A-78	855.25/859.75
A-23	525.25/529.75	A-51	693.25/697.75	A-79	861.25/865.75
A-24	531.25/535.75	A-52	699.25/703.75	A-80	867.25/871.75
A-25	537.25/541.75	A-53	705.25/709.75	A-81	873.25/877.75
A-26	543.25/547.75	A-54	711.25/715.75	A-82	879.25/883.75
A-27	549.25/553.75	A-55	717.25/721.75	A-83	885.25/889.75

United Kingdom and Ireland. Number of lines: U.K. 405; Ireland 625, partly 405.

ch	Mc/s	ch	Mc/s		Ireland (partly
B-1	45.00/ 41.50	B-8	189.75/186.25	ch	625 lines)
B-2	51.75/ 48.25	B-9	194.75/191.25	B	53.75/ 59.75
B-3	56.75/ 53.25	B-10	199.75/196.25	D	175.25/181.25
B-4	61.75/ 58.25	B-11	204.75/201.25	F	191.25/197.25
B-5	66.75/ 63.25	B-12	209.75/206.25	H	207.25/213.25
B-6	179.75/176.25	B-13	214.75/211.25	J	215.25/221.25
B-7	184.75/181.25	B-14	219.75/216.25		

Continental Europe (excl. France, Monaco, Italy and OIRT members). Number of lines: 625.

ch	Mc/s	ch	Mc/s	ch	Mc/s
E-1	41.25/ 46.75	E-4A	82.25/87.75	E-8A	201.25/206.75
E-A	42.25/ 46.75	E-5	175.25/180.75	E-9	203.25/208.75
E-2	48.25/ 53.75	E-6	182.25/187.75	E-10	210.25/215.75
E-2A	49.75/ 55.25	E-7	189.25/194.75	E-11	217.25/222.75
E-3	55.25/ 60.75	E-7A	192.25/197.75	E-12	224.75/229.75
E-4	62.25/ 67.75	E-8	196.25/201.75		

France, Monaco. Number of lines: 819.

ch	Mc/s	ch	Mc/s	ch	Mc/s
		F-6	173.40/162.25	F-9	190.30/201.45
F-2	52.40/ 41.25	F-7	177.15/188.30	F-10	199.70/188.55
F-4	65.55/ 54.40	F-8	185.25/174.10	F-11	203.45/214.60
F-5	164.00/175.15	F-8A	186.55/175.40	F-12	212.85/201.70

Italy. Number of lines: 625.

ch	Mc/s	ch	Mc/s	ch	Mc/s
A	53.75/ 59.25	D	175.25/180.75	G	201.25/206.75
B	62.25/ 67.75	E	183.25/189.75	H	210.25/215.75
C	82.25/ 87.75	F	192.25/197.75		

USSR and OIRT members (R). Number of lines: 625. Channel width: 8 Mc. Video bandwidth 6 Mc.

ch	Mc/s	ch	Mc/s	ch	Mc/s
I	49.75/ 56.25	V	93.25/ 99.75	IX	199.25/205.75
II	59.25/ 65.75	VI	175.25/181.75	X	207.25/213.75
III	77.25/ 83.75	VII	183.25/189.75	XI	215.25/221.75
IV	85.25/ 91.75	VIII	191.25/197.75	XII	223.25/229.75

New Zealand (NZ). Number of lines: 625.

ch	Mc/s	ch	Mc/s	ch	Mc/s
1	45.25/ 50.75	4	175.25/180.75	7	196.25/201.75
2	55.25/ 60.75	5	182.25/187.75	8	203.25/208.75
3	62.25/ 67.75	6	189.25/194.75	9	210.25/215.75

Australia. Number of lines: 625.

ch	Mc/s	ch	Mc/s	ch	Mc/s
0	46.25/ 51.75	5	102.25/107.75	9	196.25/201.75
1	57.25/ 62.75	5A	138.25/143.75	10	209.25/214.75
2	64.25/ 69.75	6	175.25/180.75	11	216.25/221.75
3	86.25/ 91.75	7	182.25/187.75		
4	95.25/100.75	8	189.25/194.75		

Japan. Number of lines: 525.

ch	Mc/s	ch	Mc/s	ch	Mc/s
J-1	91.25/ 95.75	J-5	177.25/181.75	J-9	199.25/203.75
J-2	97.25/101.75	J-6	183.25/187.75	J-10	205.25/209.75
J-3	103.25/107.75	J-7	189.25/193.75	J-11	211.25/215.75
J-4	171.25/175.75	J-8	193.25/197.75	J-12	217.25/221.75

UHF channels 46–63 see USA. ch 13–45, 64–82 not in use.

Television on VHF/UHF (Band IV/V) Europe and Africa.

VHF/UHF television systems for Band IV/V adopted by the European Broadcasting Conference Stockholm 1961 and by the African Broadcasting Conference, Geneva 1963 are 625-lines systems only. These can be grouped into 5 categories, here called Standards G to L:

Standard	Video Band-width (Mc)	Picture/ Sound Separation (Mc)	Vestigial Sideband (Mc)	Picture modulation	Sound modulation	Frequency of chromi-nance subcarrier (Mc)	Power ratio picture/ sound
G	5	5.5	0.75	Neg	FM	4.43	5:1
H	5	5.5	1.25	Neg	FM	4.43	5:1
I	5.5	6	1.25	Neg	FM	4.43	5:1
K	6	6.5	0.75	Neg	FM	4.43	5:1
K	6	6.5	1.25	Neg	FM	4.43	5:1
L	6	6.5	1.25	Pos	AM	4.43	8:1

ch	Vision Mc/s	ch	Vision Mc/s	ch	Vision Mc/s	ch	Vision Mc/s
21	471.25	33	567.25	45	663.25	57	759.25
22	479.25	34	575.25	46	671.25	58	767.25
23	487.25	35	583.25	47	679.25	59	775.25
24	495.25	36	591.25	48	687.25	60	783.25
25	503.25	37	599.25	49	695.25	61	791.25
26	511.25	38	607.25	50	703.25	62	799.25
27	519.25	39	615.25	51	711.25	63	807.25
28	527.25	40	623.25	52	719.25	64	815.25
29	535.25	41	631.25	53	727.25	65	823.25
30	543.25	42	639.25	54	735.25	66	831.25
31	551.25	43	647.25	55	743.25	67	839.25
32	559.25	44	655.25	56	751.25	68	847.25

The sound carrier frequency for each channel can be determined by adding the appropriate figure (5.5 Mc) to the vision carrier frequency given above. This figure appears in the list giving details about systems G, H, I, K, and L. In We. Germany is ch. 38 reserved for aeronavigation.

ALBANIA

RADIODIFFUSION TELEVISION ALBANAISE

Addr. & L.P: See Sound Broadcasting.
Station: chR2 0.02kW – Exp. transmissions three times per week at 18.00–21.00.

AUSTRIA

ÖSTERREICHISCHER RUNDFUNK (Gesellschaft m.b.H.)

Fi: By license payments, adv – **Ad:** W 18.30, 18.55, 19.20 – **Addr:** Television Dept, Schellinggasse 4, Wien I. **Cable:** Fernsehen. **Te:** 523627 – **Studios:** Maxingstr. 13a, Wien XIII; Singrienergasse 21, Wien XII; Columbia-studio, Rothgasse 9, Wien I – **L.P:** Dir. Gen: J. Scheidl. Dir. TV: G. Freund. Vice Dir. Gen: Ing. W. Füchsl.

Stations:	ch	kW(W)		ch	kW(W)
Jauerling	E2	60/12H	Königsberg[1]	E7	10/2W
Veitsch[1]	E3	10/2W	Gaisberg	E8	60/12
Patscherkofel	E4	30/6H	Hieflau[1]	E8	0.5/0.1W
Goldbach	E4	0.75/0.15	Griesfeld[1]	E8	3/0.6W
Kirchenberg	E5	0.2/0.04W	Mitterberg	E8	0.4/0.08W
Höfener Alm	E5	3/0.6W	Freinberg[1]	E9	30/6W
Kahlenberg	E5	60/12H	Mugel	E9	10/2
Pfänder	E5	80/16H	Sonnwendstein	E10	5/1
Schladming[1]	E5	0.1/0.02W	Pyramidekogel	E10	30/6
Schladberg[1]	E5	1/0.2W	Hahnbaum[1]	E10	0.1/0.02
Schmittenhöhe[1]	E6	0.05/0.01	Flühen[1]	E10	0.3/0.06W
Gschwandkopf	E6	0.1/0.02	Grünberg[1]	E11	5/1W
Heuberg[1]	E6	0.08/0.016	Penzenstein[1]	E11	5/1W
Kanzel[1]	E6	0.5/0.1W	Poster[1]	E11	10/2W
Lichtenberg	E6	60/12H	H. Kaibling	E11	10/2
Lorenzenberg[1]	E6	10/2W	Baumgarten[1]	E12	10/2W
Schöckl	E7	60/12H	Goldeck[1]	E12	80/16W
Hartberg[1]	E7	30/6W	Kahlenberg II	E24	400/80*
Ebenfeld	E7	10/2W	[1] Frequency-changer.		

D.Prgr: Sun, Wed 16.00–21.30 (approx), other days: 18.00–21.30 (approx) – * Tec. Testprgr's: Wed, Fri, Sat 17.30–19.00.
AKG, Austria: delivered studio equip. (recorders, microphones).
Ampex Videotape*, USA.
Telefunken AG, Germany: delivered 10kW tr's (Jauerling, Pfänder), 2kW tr. (Pyramidenkogel); studio equip. (recorders, microphones).

BELGIUM

RADIODIFFUSION-TELEVISION BELGE (RTB) – BELGISCHE RADIO EN TELEVISIE (BRT) (Co.)

FI: By state grant-in-aids – **Addr:** RTB or BRT, Place Eugène Flagey 18, Brussels 5. **Cable:** RTB or BRT-TV. **Te:** French 49.20.80. Flemish 48.64.30 – **L.P:** French Prgr: Dir: L. P. Kammans. Flemish Prgr: Dir: B. Janssens. For Rel: Dir: L. Wallenborn.

French Prgr: Def. 819	ch	E	kW		Flemish Prgr: Def. 625	ch	E	kW	
Ougrée	3		100/25	H	Stavelot	5		5/1W	V*
Bruxelles					Couvin	4		5/1W	H*
	8		100/25	H	Bruxelles				
Anlier	11		10/2.5	H		10		100/25	H
Bruxelles	7		5/1.25W	V*	Aalter	2		100/25	H
Anseremme	5		10/2.5W	V*	Antwerp	2		100/25W	V*
Bouillon	9		10/2.5W	V*	Brussel	11		5/1.25W	V*
Hastiere-Lavaux	4		5/1W	H*					

* Satellites tr's.
D.Prgr: French Prgr: W 19.30–23.30. Sun 14.00–17.45, 19.30–23.30. **Flemish Prgr:** W 18.00–21.30 (Tues, Fri also 13.05–14.00).
AKG, Austria: delivered studio equip. (recorders, microphones) – **Ampex Videotape*,** USA.
The Marconi Company Ltd, GB, delivered OBV.
Pye TVT, GB: Studio equip, OBV for Eurovision switching centre.

BULGARIA (Peoples Rep. of)

BULGARIAN TELEVISION (Go.)

Addr: Todor Strastimrirov St. 2, Sofia. **Cable:** Tvbulgar. **Te:** 4-33-11 – **L.P:** Dir. Gen: N. Ganchovski. Mgr: V. Baev. Dir. Tec: G. Fratev – **Station:** Ch. OIRT-VII 0.5/0.250kW H. **D.Prgr:** Mo, Wed, Sat 17.00–20.30. Overtime Prgr. on Sundays.
Pye T.V.T, GB: Tr, ant, studio equip, OBV.

CZECHOSLOVAKIA

CESKOSLOVENSKÁ TELEVIZE

AD: Approx. 20 min. weekly – **Addr:** Ceskoslovenskà televize, nàm. M. Gorkého 29, Praha 1. **Cable:** Televize Praha. **Te:** 221247.
L.P: Dir. Gen: J. Pelikàn. Dir. Tec: F. Svejkovsky. Dir. For. Rel: L. Kubicek. Dir. Slovak TV (Bratislava): J. Vrabec.
***TM** Ampex.

STATIONS: Ch. OIRT. Polarisation: H.

Praha	ch	kW		Brno	ch	kW	
Stredni Cechy	1	30/6	H	Jizni Morava	9	10/2	H
Severni Cechy	12	8/1.6	V	**Ostrava**			
Zàpadni Cechy	10	10/2	H	Severni Morava	1	10/2	H
Jizni Cechy	2	10/2	H	**Bratislava**			
Východni Cechy	6	10/2	H	Zàpadni Slovensko	2	10/2	H
				Stredni Slovensko	7	10/2	H
				Východni Slovensko	6	10/2	V

D.Prgr: Mo: 16.30–21.30. Tues: 07.30–09.30, 17.00–21.00. Wed: 07.30–09.00, 14.00–21.00. Thurs: 07.00–09.00, 16.30–21.30. Fri: 16.30–21.00. Sat: 08.00–11.30, 14.00–22.30. Sun: 07.30–12.00, 14.00–21.30.

DENMARK

FI: By license payments – **Addr:** Television Service, R. Denmark, Radiohouse, Rosenørnsalle, Copenhagen V. **Cable:** Danradio. **Te:** 350647 – **L.P:** Dir. Gen: H. Sølvhøj. Dir. Prgr: J. Fr. Lawaetz.
Stations: Ch. E. Po. H, exc. those marked * V

	ch	kW		ch	kW		ch	kW
Funen	3	10/3	Vejle*	5	0.05	Frederikshavn*	8	0.05
Copenhagen	4	10/3	So. Seeland	6	60/20	Kolding*	9	0.1
Ålborg	5	10/3	So. Jutland	7	60/20	We. Jutland	10	60/2
Bornholm	5	10/3	Århus	8	10/3			

D.Prgr: 18.30–22.00. Childrens Hour: Mo, Tues 18.00–18.30; Thurs, Fri, Sat 16.00–16.30 – Test tr's normally at the following times, if no regular prgr's: Mo–Fri 08.00–09.00, 12.30–16.30 (Wed 15.00), Sat 08.00–14.00.
The Marconi Company Ltd, GB: Tr's: 1/0.25kW (Ålborg), 2.5/0.625 kW (Århus), 1.5/0.3kW (Bornholm), 5kW (Copenhagen), 5/1.25kW (Odense), 5/1.25kW (Funen), 4/1kW (Naestved), 4/1kW (We. Jutland).
AKG, Austria: delivered studio equip. (recorders, microphones).
Ampex Videotape (TM Ampex), USA.
Pye T.V.T, GB: Studio equip, OBV.

FINLAND

SUOMEN TELEVISIO (Go. – limited comm. operation)

FI: by license payments and limited earnings from adv.
Addr: Pasila, Ilmala, Helsinki. **Cable:** Yleisradio. **Te:** 440591.
L.P: See Sound Broadcasting.
Stations:

Name	ch	kW/W	Po.	Name	ch	kW/W	Po.
Kemi	3	1W	H	Koli	8	5	H
Hämeenlinna	5	5W	H	Savonlinna	8	2W	H
Karhula	5	400W	V	Tampere	8	80	H
Kouvola	5	5W	H	Lahti	9	40	H
Lapua	5	80	H	Pori	9	200W	H
Rauma	5	200W	H	Ylivieska	9	60	H
Tammisaari	5	150W	H	Joutseno	10	10	H
Helsinki	6	10kW	H	Tammela	10	200W	H
Mikkeli	6	100W	V	Hanko	11	8W	V
Karkkila	7	5W	V	Joensuu	11	1W	H
Kokkola	7	100W	H	Jyväskylä	11	10	H
Kuopio	7	45kW	H	Lohja	11	5W	H
Mántyharju	7	100W	H	Porvoo	11	2W	H
Oulu	7	60kW	V	Riihimäki	11	5W	H
Turku	7	45kW	H				

D.Prgr: W 09.00–10.35, 11.10–14.00, 16.00–16.25 (Mo, Thurs), 16.00–16.55 (Tues), 15.30–16.25 (Wed), 15.30–16.55 (Fri), 17.30–19.30(Tues 20.25). Sat 09.00–12.00, 15.30–16.55, 17.30–19.30, *20.10–21.55. Sun 07.45–08.00, **08.00–09.00, 12.45–14.40, 16.00–16.25, 17.30–19.30
* Sat fortnightly. Oy Mainos-Tv.Reklam Ab. ** Sun fortnightly
AKG, Austria: delivered studio equip. (recorders, microphones).
Ampex Videotape (TM Ampex) USA.
Pye TVT, GB: Studio equip.

OY MAINOS-TV-REKLAM AB:

An independent TV company for comm. prgr, to which the Finnish TV rents out its studios and channels. The daily adv. is made only in the beginning and at the end of the prgr's – **L.P:** P. Hanski – **D.Prgr:** W 10.35–11.10, 16.25–17.30, 16.55–17.30 (Tues, Fri), 19.30–21.00, 19.30–20.35 (Wed, Thurs), 19.30–20.10 (Fri). Sat 16.55–17.30, 19.30–20.10. Sun: 14.40–15.10, 16.25–17.30, 19.30–20.35.

OY TESVISIO AB (Indep).

Fi: By adv, comm. (spots) up to 10%. Adv. are placed between the various prgr's and Tesvisio transmit up to seven min. of comm. spots per h – **Addr:** Ratakatu 9, Helsinki. **Cable:** Tesvisio. **Te:** 50-233 – **L.P:** Dir. Gen: V. J. Nurmimaa. Dir. Prgr: K. Ehder. Dir. Tec: K. Teräsvuo – **Stations:** Helsinki ch E8 10/2kW H, Tampere ch E2 20/4kW V, Turku ch E9 10/2kW V – **D.Prgr:** Mo, Tues 15.45–20.00, Wed 15.45–20.30, Thurs 15.00–20.00, Fri 15.45–21.00, Sat/Sun 15.00–20.00.
AKG, Austria: delivered studio equip. (recorders, microphones).

FRANCE

RADIODIFFUSION-TELEVISION FRANÇAISE (Go.)

Addr. and L.P: See Sound Broadcasting.
Principal stations: Audio Powers = ¼ Vision powers indicated.

*=Reduced power (temporary or exp. tr).

Location	chF	kW	Pol.	Location	chF	kW	Pol.
1) Bastia	2	0.05*	V	18) Nancy	7	0.05	V
2) Caen	2	20	H	19) Niort	7	20	V
3) Limoges	2	20	H	20) Lille	8A	20	H
4) Troyes	2	20	H	21) Paris	8A	20	H
5) Ajaccio	4	0.05*	H	22) Brest	8	10	H
6) Besancon	4	3	V	23) Marseille	8	20	H
7) Carcassonne	4	20	V	24) Mulhouse	8	20	H
8) Nantes	4	20	V	25) Bourges	9	20	H
9) Reims	5	10	V	26) Bordeaux	10	0.5	H
10) Rennes	5	20	H	27) Dijon	10	0.5	V
11) Strasbourg	5	3	H	28) Grenoble	10	0.05	H
12) Toulouse	5	2	H	29) Rouen	10	10	H
13) Clermont Fd.	6	10	V	30) Toulouse	10	0.05	H
14) Metz	6	10	H	31) Amiens	11	20	V
15) Pic-de-l'Ours-St. Raphael	6	3	V	32) Aurillac	11	0.5	V
				33) Le Mans	12	10	V
16) Gex	7	3	V	34) Lyon	12	20	H
17) Le Havre	7	0.05	H	35) Perpignan	12	0.05*	H

Relay Stations: The figures refer to the principal stations above. **Powers:** In watts. **Channels:** F—.

2) Cherbourg ch12 H 500W, Lisieux ch6 H 3W – 3) La Bourboule ch9 H 0.3W, Le Mont Dore ch12 H 0.3W, Perigueux ch12 H 3W – 6) Val d'Ajol ch7 H 3W – 7) Millau ch12 H 3W, Roquefort/Soulzon ch9 H 3W – 9) Bar-le-Duc ch12 V 3W, Fumay ch12 V 3W, Mezieres ch8A V 50W, Montherme ch11 H 3W, Revin ch9 H 3W, Joinville ch11 H 6W – 10) Vannes ch12 H 500W – 11) Schirmeck ch9 V 3W – 12) Arcachon ch11 V 6W, Argeles ch9 V 3W, Arreau ch12 H 3W, Arrens ch12 H 0.3W, Fumel ch10 H 6W, Labroquere ch12 H 3W, Bayonne ch9 V 40W, Lourdes ch11 H 3W, Luz ch12 3W, Mas d'Azil ch8 V 0.3W, Mauleon ch10 H 3W, Oloron ch12 H 3W, St. Front/Lemance ch5 V 0.05W, Tarascon/Ariege ch11 H 3W, Villeneuve S/Lot ch12 H 3W, Saint-Girons ch11 H 6W – 13) Ambert ch9 V 3W, Aubusson ch12 H 0.3W, Autun ch11 V 3W, Champeix ch11 H 0.3W, Chateauneuf ch10 H 0.3W, Courpiere ch9 H 0.1W, Creusot ch11 H 40W, Egliseneuve ch10 H 0.3W, Menat ch12 H 0.1W, Monistrol D'Allier ch10 H 0.3W, Montlucon ch12 H 40W, Olliergues ch10 H 0.3W, Pontaumur ch11 H 0.3W, Riom-ès-Montagnes ch9 H 3W, St-Chely d'Apcher ch11 H 0.3W, St-Flour ch9 H 3W, Vertolaye ch11 V 0.3W – 14) Abreschviller ch11 V 0.3W, Algrange ch12 H 3W, Epinal ch12 V 40W, Gerardmer ch12 H 3W, Longuyon ch12 H 3W, Longwy ch12 V 40W, Moyenmoutier ch12 V 0.35W, Neufchateau ch12 H 3W, Remiremont ch11 H 3W, Sarreguemines ch 12V 3W, St. Avold ch12 V 3W, Saint Die ch12 H 3W, Saint-Mihiel ch12 H 3W, Senones ch11 H 3W, Sarrebourg ch12 V 3W, Verdun ch12 H 3W, Villerupt ch11 H 3W, Vittel ch12 H 5W – 15) Breil Sur Roya ch11 H 3W, Draguignan ch11 V 0.3W, Menton ch11 V 3W, Nice ch11 V 50W, Sospel ch12 H 0.3W – 19) Le Blanc ch11 H 0.3W – 20) Boulogne ch4 H 40W, Vireux ch11 V 3W – 21) Beauvais ch5 H 3W, Sens ch11 V 40W – 22) Perros-Guirec ch12 H 3W – 23) Ales ch11 V 3W, Apt ch11 H 0.3W, Aubenas ch6 V 3W, Briancon ch12V 3W, Cassis ch4 H 0.3W, Digne ch11 V 3W, Gap ch11 V 40W, La Grand Combe ch12 H 3W, Lodeve ch11 H 0.3W, Nyons ch11 H 0.3W, Toulon ch11 H 50W, Vallon Pt. d'Arc ch10 V 3W – 24) Munster ch6 H 3W, Le Thillot ch11 V 3W – 25) Auxerre ch6 H 3W – 26) Lalinde ch6 H 3W – 27) Besancon ch5 H 3W, Lons-le-Saunier ch6 H 3W, Nolay ch5 H 3W, Pontarlier ch5 V 6W, Salins ch5 H 3W – 28) La Motte d'Aveillans ch5 V 0.3W, Monthelian ch5 H 3W – 29) Bolbec ch5 H 3W, Evreux ch5 H 3W, Fecamp ch6 H 3W, Lillebonne ch8 V 3W, St-Valery-en-Caux ch5 V 3W – 30) Foix ch6 V 0.3W – 31) Ault ch7 V 0.3W, Eu ch6 V 3W – 32) Argentat ch7 H 3W, Cahors ch8 H 3W, Champs S/Tarentaine ch5 H 0.3W, Espalion ch8 H 0.3W, Rodez ch8A V 3W, Sarlat ch6 V 0.3W, Souillac ch10 H 0.3W, St Geniez d'Olt ch7 H 0.3W, Tulle ch5 H 3W, Villefranche de Rodergue ch7 H 0.3W, Viviez ch8 H 0.3W – 34) Aurec ch5 H 0.3W, Beaujeu ch5 V 3W, Bourg Argental ch5 H 0.3W, Chambery ch6 V 40W, Chamonix ch6 H 3W, Die ch7 H 0.3W, Dunieres ch5 H 0.3W, Givors ch7 V 0.3W, La Mure ch6 H 3W, Lyon ch5 H 250W, Le Puy ch5 H 3W, Megeve ch7 V 10W, Monistrol S/Loire ch7 H 3W, Montelimar ch5 H 6W, Nantua ch6 H 3W, Privas ch5 H 3W, Serrieres-Andance ch7 H 3W, Saint-Antheme ch7 H 0.3W, Saint-Etienne ch8 H 40W, Sainte Foy ch7 H 0.3W, Saint-Gervaix ch9 H 10W, Saint-Jean-on-Royans ch9 H 3W, St-Laurent-du-Pont ch8 H 0.3W, Saint-Peray ch7 H 0.3W, Saint Rambert en Bugey ch6 H 0.3W, Tenay ch5 H 0.3W, Voiron ch7 H 6W – **Other relay st's:** Queice ch4 H 3W, Cazaux ch8 H 3W, Saint-Lary ch6 V 0.3W, Tende la Brigue ch7 H 0.3W, Saulnes ch7 V 1W, Bareges ch8 H 0.3W, Tarare ch9 H 3W, Albertville ch10 V 3W, Redous ch8 H 3W, Le Puy ch10 V 0.3W, Villard Sur Doron ch8 H 3W, Condat ch5 H 0.3W, Chaudes-Aigues ch5 H 0.3W, Murat ch5 H 0.3W, St. Flour ch12 V 0.3W, Tardets-Sorholus ch4 H 0.1W, Hyeres ch4 V 40W, Le Bourg d'Oisans ch11 H 6W, Beaufort Sur Doron ch11 H 6W, Givet ch7 H 3W.

D.Prgr: W 11.30–12.30, 17.30–22.00(Sat 22.50) Sun 09.00–21.50.

Second Prgr: Paris ch22 H 10kW. W: 13.00–18.00 (exp).

Radio relay links between: Paris–Lille, Paris–Rouen–Le Havre–Caen–Rennes–Nantes–Brest, Paris–Reims–Troyes–Metz(–Luttange)–Nancy –Strasbourg–Mulhouse–Besançon, Paris–Perreuse–Dijon–Lyon–Marseille, Cannes–Mont Agel–Corse, Lyon–Clermont Ferrand–Grenoble–St. Etienne, Paris–Perreuse–Bourges–Limoges and Bordeaux–Toulouse–Carcassonne–Perpignan–Les Baleares–Alger, Metz–Luxembourg, Dabo–Hornisgrinde (Germany), Lille–Cassel–Dover.

Ampex Videotape (TM Ampex), USA.

GERMANY
GERMAN FEDERAL REPUBLIC

ARBEITSGEMEINSCHAFT DER ÖFFENTLICH-RECHTLICHEN RUNDFUNKANSTALTEN DER BUNDESREPUBLIK DEUTSCHLAND (ARD)

German Television Prgr. Coordination, 8 München 23, Leopoldstrasse 10. Te: 3 65 61. Telex: 05-22480 – **L.P:** Coordinator: Dr. K. Mohr. Deputy-Coordinator: R. E. Lembke. Eurovision: H. von Plato. Press dept: O. Meitzner.

A common prgr. is being broadc. throughout Germany under the title "Deutsches Fernsehen". Each of the organizations participates in the production of this prgr. In addition reg. broadc's are transmitted by each of the broadc. organizations.

***Community television Prgr:** D: 16.00–17.15, 19.00–approx. 22.00.* Sat: 13.30–17.30, 19.00–approx. 22.00. Sun: 10.00–approx. 22.00 – **Reg. prgr's:** W 18.15–20.00. Sat 18.30–20.00.

BAYERISCHER RUNDFUNK *(Anstalt des öffentlichen Rechts)*

Ff: By license payments – **AD:** D (exc. Sun) max. 12 mins.

Addr: Fernsehdirektion des Bayerischen Rundfunks, Rundfunkplatz 1, Funkhaus, München 2. **Studio:** Florianmühlstr, München-Freimann – **L.P:** Intendant: Chr. Wallenreiter. Dir. TV: Dr. Cl. Münster, Dr. B. Hubensteiner. Dir. Adm: H. Spies. Dir. Tec: Dr. F. Daser.

Stations	ch E	kW		ch E	kW
Grünten	2	100/20H	Brotjacklriegel	7	100/10H
Kreuzberg	3	100/20V	Wendelstein	10	100/20H
Ochsenkopf	4	100/20V	Würzburg	10	2/0.4H
Dillberg	6	100/20H	Hohenpeissenb.	25	10/2H
			Hoher Bogen	55	225/45H

Low power stations:

	ch E	Watts		ch E	Watts
*Bad Reichenhall	5	5/1H	Lindau	9	100/20H
*Bad Töiz	5	25/5V	*Mittenwald	9	1.25/0.25H
*Eichstätt	5	5/1H	*Pappenheim	9	2/0.4H
Grassau	5	1/0.2H	*Bad Berneck	10	0.1/0.02H
*Hohe Linie	5	100/20V	*Kulmbach	10	2/0.4H
*Kelheim	5	10/2H	Garmisch-Partenkirchen	10	2/0.4V
Herzogstand	5	50/10H	*Wunsiedel	10	10/2H
*Landshut	5	4/0.8V	*Bad Kissingen	11	5/1H
*Passau	5	20/4V	*Bamberg	11	20/4H
*Rothenburg	5	5/1H	*Berchtesgaden	11	2/0.4H
*Ruhpolding	5	30/6V	*Füssen	11	10/2H
Tegernseer Tal	5	2/0.4H	*Lohr/Main	11	1/0.2H
*Amorbach	6	5/1H	Neustadt	11	2.5/0.5H
*Miltenberg	7	10/2H	*Weissenburg	11	12/2.4H
Ochsenfurt	7	30/6H	*Mainbullau	12	30/6H
*Hindelang	9	3/0.6H	*Treuchtlingen	12	15/3H

Testtr's: 09.00–11.00, 12.00–15.50, Sat 12.00–15.50.

*** Fabricca Italiana Apparecchi Radio SpA,** Italy, has sold different TV repeaters, antennas, amplifiers to these st's marked.*

Ampex Videotape (TM Ampex), USA.

***Pye TVT, GB:** Studio equip, O.B.V.*

HESSISCHER RUNDFUNK *(Anstalt des öffentlichen Rechts)*

Addr: see sound broadc – **L.P:** Dir. Prgr: H. O. Grünefeldt. Entertainment: A. Neve. News: W. Hanke. Play: R. Hädrich (komm). Production: H. Uhlich. Afternoon prgr: J. Göhlen.

Stations: Feldberg ch E8 100/10kW H – Meissner ch E7 100/10kW H – Biedenkopf ch E2 30/2kW H d – Hardberg ch E5 3/0.1kW H d.

Frequency Changers: Po: H

	ch	Watts		ch	Watts
Marburg	11	30/5	Bad Hersfeld	9	10/0.5
Dillenburg	5	3/5	Rotenburg (Fulda)	9	3/0.5
Bad Orb	10	1/0.5	Schlüchtern	6	3/0.5
Erbach/Odw.	6	0.75/0.5	Weilmünster	11	3/0.5
Bad König	6	1/0.5	Michelbach	11	3/0.5
Biedenkopf	6	1/0.5	Melsungen	9	1/0.5
Michelstadt	11	5/5	Spangenberg	9	1/0.5
Philippsthal	9	3/5	Willingen	9	3/0.5
Kammerforst	9	10/3	Helmarshausen	9	1/0.5
Bad Schwalbach	5	1/0.5	Eppstein/Ts	11	3/0.5
Haiger	6	1/0.5	Karlshafen	5	1/0.5
Wetzlar	11	10/5	Ruppertshain/Ts	11	0.3/0.05
Birkenau/Odw.	11	1/0.5	Wirtheim	6	3/0.5
Höchst/Odw.	11	3/0.5	Helsa	9	5/0.5
Salmünster	11	3/0.5	Reichelsheim	6	3/0.5
Fulda	11	25/5	Neustadt/Odw.	6	3/0.5
Bad Sooden-Allendorf	9	1/0.5	Arnoldshain/Ts	11	1/0.5
			Grävenwiesbach	11	3/0.5

D.Prgr: 16.00–21.30; Sat also 13.30–16.00; Sun also 10.00–16.00. **Test-tr's:** W: 09.30–11.00, 12.00–15.50. **Ad:** Mo–Fri: 17.15–18.00. Sat: 17.30–18.00. W: 18.20–18.55.
Telefunken AG, Germany: delivered 2kW tr. (Biedenkopf).
Ampex Videotape (TM Ampex), USA.

RADIO BREMEN (Anstalt des öffentlichen Rechts)

FI: By license payments – **AD:** D (exc. Sun) max. 17 min – **Addr:** & **L.P:** See sound broadc – **Stations:** Bremen ch E22 100/10kW H – Bremerhaven ch E5 0.16/0.03kW V.
Ampex Videotape (TM Ampex), USA.

NDR-FERNSEHEN

Addr: Hamburg-Lockstedt, Gazellenkamp 57. **Te:** 580221 – **L.P:** Intendant: G. Schröder. Dir. Prgr: Dr. H. Arnold. Presse: H. Ruppersberg. Zeitgeschehen & Nordschau: R. Proske. Tageschau: H.-J. Reiche. Fernsehspiele: E. Monk. Musik: Dr. Th. Langner.

Stations:	ch	kW	Pol.		ch	kW	Pol.
Oldenburg/ Steinkimmen	2	100	H	Harz	10	100	H
Flensburg	4	50	H	Bungsberg	50	230	H
Kiel	5	5	H	Lingen	41	100	H
Hannover	8	5	H	Dannenberg	43	250	H
Hamburg	9	100	H	Osnabrück	50	12.5	H
Heide	10	25	V	Aurich	53	230	H
Freq.-changers:	**ch**	**Watt**	**Pol.**	Oldenburg/Steink.	55	400	H
Goslar/Oker	5	30	H		**ch**	**Watt**	**Pol.**
Bad Grund I	5	8	V	Osterode	8	1	V
Osnabrück	5	60	V	Helgoland II	8	0.5	H
Hameln/Weser	5	12	V	Hahnenklee	8	1.5	V
Freden	5	3	V	Hess. Oldendorf	8	25	V
Helgoland I	5	0.5	H	B. Salzdetfurth I	8	1	V
Wildemann I	5	2	V	Zorge	8	0.5	H
Königslutter	5	30	V	Wildemann II	8	0.5	H
Stadtoldendorf	5	1.5	V	Wieda	8	0.6	H
Cuxhaven	6	100	V	Kreiensen	8	4	H
Bad Harzburg	7	1	H	Göttingen	9	60	V
Lübeck	7	300	V	Alfeld	9	2.5	V
Rinteln	7	8	V	Bodenwerder	9	1	H
Holzminden	8	4	H	Bad Lauterberg I	9	3	H
St. Andreasberg	8	2	V	Bad Grund II	9	0.25	H
Braunlage	8	1	H	Grafensund./Iburg	10	25	V
Hann. Münden	8	10	H	Bad Sachsa	11	5	H
Uslar	8	1	V	B. Salzdetfurth II	11	0.75	V
				Lautenthal	11	1.2	V
				Bad Lauterberg II	11	10	V

D.Prgr: Test-tr's: Hamburg: Mo: 12.00–15.45, Tues–Fri: 09.00–11.00, 12.00–15.45, Sat: 09.00–11.00. **Reg.Prgr:** W: 17.45–18.35, Sun: 18.00–18.30 – **Ad:** W: 18.25–19.00 – V. by QSL-card.
Telefunken AG, Germany, delivered tr's: 1×1kW, 1×2kW (Hannover), 10kW (Flensburg), further 2×10kW tr's.
Ampex Videotape (TM Ampex), USA.
Pye T.V.T, GB: Studio equip

WDR FERNSEHEN

Addr. & L.P: see Sound Broadc.
First TV-Prgr: Pol: H.

Stations:	ch.E	kW(ERP)		ch.E	kW(ERP)
Aachen-Stolb	24	200/40	Münster	32	250/50
Bonn*	5	0.5/0.1	Nordhelle	30	20/4
Kleve	58	24/4.8	Teutob. Wald	11	100/20
Köln	11	5/1	Wuppertal*	6	0.6/0.12
Langenberg	9	100/20			

plus 140 low power frequency changers. *=Satellite st's.
D.Prgr: Testtr: W: 09.00–11.00, 12.00–17.00(Sat 13.00).
Reg. Prgr: W: 17.30–18.15 (Sat also 13.00–13.30).
Common Prgr: W: 16.00–17.00 (Sat 13.30–17.25), 19.00–at least 21.00. Sun: 09.30–at least 21.00 – **Ad:** W 18.15–19.00.
On different channels, scheduled to transmit a **Third TV-Prgr.** by Westdeutscher Rundfunk Köln, starting from a time as yet indefinite, there is transmitted now a reg. prgr. ("Prisma des Westens") since October 1, 1963: W: 19.15–19.45.

Stations	ch.E	kW(ERP)		ch.E	kW(ERP)
Wuppertal	42	100	Düsseldorf	55	500
Dortmund	53	500	Bonn (Ölberg)	49	100

Ampex Videotape (TM Ampex), USA.
Telefunken AG, Germany, delivered 2×10kW tr's (Langenberg), 1×20kW tr.

SAARLÄNDISCHES FERNSEHEN A.G. (Comm.)

FI: By license payments and adv – **Ad:** 17.15–19.00 – **Addr:** Schloss Halberg, Saarbrücken, Postfach 1050. **Cable:** Rundfunk Saar. **Te:** 6021 – **L.P:** See Sound Broadcasting.
Stations: Göttelborner Höhe chE2 100/20kW, V – **Low Power Stations:** Güdingen ch6 50/10W H – Neuweiler ch6 50/10W H – Stahlhammer ch8 0.25/0.05W – Mettlach ch9 3/0.6W H – Perl ch9 50/10W H – Scheidt ch9 0.2/0.04W V – Blieskastel ch11 42/8.4W V – Merzig ch11 10/2W H – Saarbrücken ch11 250/50W V – Saarhölzbach ch11 0.4/0.08W H – St. Ingert ch11 2/0.4W V – **D.Prgr: Reg. Prgr:** "Werbesendung" 17.15–18.58.
Ampex Videotape (TM Ampex), USA

SENDER FREIES BERLIN

FI: By license payments – **Addr:** Fernsehen, Masurenallee 8/14, 1 Berlin 19. **Cable:** Sender Freies Berlin. **Te:** 92031 – **L.P:** See Sound. **Station:** Berlin chE7 100/10kW – **D.Prgr:** W: 09.00–12.00, 15.25–17.15, 17.35–18.45, 19.00–22.30(approx). Sat: 09.00–12.00, 13.30–17.15, 19.00–22.30(approx). Sun: 09.00–22.30(approx). Testtr: W: 12.00–15.25.
Ampex Videotape (TM Ampex), USA.

SÜDDEUTSCHER RUNDFUNK FERNSEHEN

(Anstalt des öffentlichen Rechts)
FI: By license payments – **Addr:** Neckarstrasse 145, 7000 Stuttgart. **Cable:** Südfunk. **Te:** 299701 – **L.P:** TV-Dir: H. Jaedicke. Dir. Tec: Dr. H. Rupp.

Stations:	ch	kW(ERP)			ch	kW(ERP)	
Heidelberg I	7	50/10kW	V	Stuttgart	11	100/20kW	H
Aalen*	8	20/4kW	V	Heidelberg II	50	500/100kW	H
Waldenburg	9	100/20kW	H	* from 64/65: 50/10kW			

Frequency changers:

	ch	W(ERP)			ch	W(ERP)	
Pforzheim	5	500/100	H	Tauberbischofsh.	6	1.2/0.24	V
Heidelberg Stadt	5	2/0.4	V	Neckargemünd	6	1.5/0.3	H
Herbrechtingen	5	0.6/0.12	V	Niedernhall	6	1.5/0.3	V
Landau	5	2/0.4	H	Schwäb. Gmünd	6	2/0.4	V
Mühlacker	5	0.5/0.1	V	Unterkochen	6	2/0.4	V
Murrhardt	5	3/0.6	V	Geislingen	6	3/0.6	V
Schwäbisch Hall	5	1.5/0.3	H	Eberbach/Neckar	9	5/1	V
Stuttgart-Obertürkheim	5	5/1	H	Niefern	9	1.5/0.3	V
Adelsheim	6	2.5/0.5	H	Deggingen	10	5/1	V
Blaubeuren	6	0.5/0.1	H	Oberkochen	10	0.7/0.14	V
Ebersbach-Weiler	6	2/0.4	H	Heidenheim	11	1/0.2	H
Giengen	6	0.5/0.1	V	Ulm	11	30/6	V
Königsbronn	6	1/0.2	V	Bad Mergentheim	11	1/0.2	V
Mosbach	6	0.8/0.16	H	Künzelsau	11	1/0.2	V
				Wertheim	11	5/1	H

D.Prgrs: W: 16.00–17.20, 19.00–21.30 (approx). Sat: 14.00–17.20, 19.00–22.00 (approx). Sun: 10.00–22.00 (approx) – **Reg. Prgr:** Mo–Fri 17.50–18.20. **Ad:** W: 17.20(Sat 17.30)–17.50, 18.20–19.00. **Test-prgrs:** W 09.00–11.00 and 12.00 to start of prgr's.
Telefunken AG, Germany: delivered 2×2kW tr's (Aalen, Waldenburg)

SÜDWESTFUNK (Anstalt des öffentlichen Rechts)

FI: By license payments – **AD:** W: 17.30–17.50, 18.20–19.00 – **Addr:** Südwestfunk Fernsehen, Hans Bredowstr, Baden-Baden. **Cable:** Südwestfunk. **Te:** 761 – **L.P:** See Sound Broadcasting.

Stations:	chE	kW(ERP)	Pol.		chE	kW(ERP)	Pol.
Raichberg	4	40/8	H	Weinbiet	6	30/6	H
Trier	5	0.6/0.12	H	Eifel	23	20/4	H
Koblenz	6	50/10	H	Haardtkopf	25	200/40	H
K'lautern	7	03/0.06	H	Eggberg	22	0.8/0.16	H
Zweibrücken	7	0.08/0.01	H	Waldshut	21	1/0.2	H
Freiburg	7	0.021/0.04	H	Wannenberg	28	5/1	H
Baden-Baden	7	0.3/0.06	H	Mainz	11	1/0.2	H
Hornisgr.	9	100/20	H	Saarburg	31	20/4	H
Feldberg i Schw.	8	100/20	H	Donnersberg	10	100/20	H
				Marienberg	47	50/10	H

+121 low power-freq. satellites.
D.Prgr: 16.00–17.00, 17.30–22.00 (Reg. prgr. 17.30–19.00) – **Testtr:** W: 09.00–11.00, 12.00 to approx. 15.50.
Ampex Videotape (TM Ampex), USA.
Telefunken A.G, Germany, delivered 1×10kW tr. (Raichberg), 1×2kW tr. (Hornisgrinde).

ZWEITES DEUTSCHES FERNSEHEN

(Anstalt des öffentlichen Rechts)
FI: By license payments – **Addr:** Mainz, Postfach 343. **Te:** 2051. **Telex:** 04 187661 – **L.P:** Dir. Gen: Prof. Dr. K. Holzamer. Dir. Prgr: U. Grahlmann. Dir. Inf: W. Dietrich. Dir. Adm: Dr. F. Huch. Dir. Tec: R. Kaiser. Dir. Foreign Relations: E. P. Braun.
Stations: chE, Pol: H

	ch	kW(ERP)		ch	kW(ERP)
Aachen	37	500/100	Dortmund	25	500/100
Augsburg	23	500/100	Düsseldorf	29	500/100
Baden-Baden	31	330/66	Eiderstedt	31	500/100
Bamberg	24	100/20	Eutin	21	500/100
Berlin	33	500/100	Feldberg/Ts	34	500/100
Bielefeld	33	500/100	Flensburg	39	500/100
Bonn	26	100/20	Freiburg/Breisgau	33	500/100
Bremen	32	500/100	Fulda	26	200/40
Coburg	22	250/50	Haardtkopf	35	200/40
Cuxhaven	24	330/66	Hamburg	30	250/50
Donaueschingen	22	100/20	Hannover	24	500/100
Donnersberg	37	250/50	Heidelberg	27	500/100

Hof	23	200/40	Passau	34	50/10
Kaiserlautern	22	25/5	Ravensburg	37	500/100
Kassel	35	100/20	Regensburg	21	500/100
Kiel	35	250/50	Rottweil	35	300/60
Koblenz	31	100/20	Saarbrücken	32	330/66
Landshut	39	50/10	Schleswig	26	100/20
Lingen	24	500/100	Schnaitsee	26	250/50
Minden/Westf.	26	500/100	Stuttgart	26	300/60
Monschau	21	300/60	Torfhaus	23	500/100
München	35	250/50	Trier	37	100/20
Münster	21	50/10	Uelzen	27	500/100
Niebüll	34	200/40	Würzburg	25	250/50
Nürnberg	34	250/50	Wuppertal	22	100/20
Ostfriesland	33	250/50			

D.Prgr: Testtr: W (exc. Wed) 10.00 until start of Prgr. Wed: 14.00 until start of Prgr. **Common Prgr:** W 18.40–22.30 approx. Sat: 17.30–22.30 approx. Sun: 18.50–22.30 approx. Sport on Sunday afternoon.
Telefunken AG, Germany, delivered studio-equip. (recorders).

GERMAN DEMOCRATIC REPUBLIC

DEUTSCHER FERNSEHFUNK (Go.)

FI: By state – **AD:** three times weekly after 18.00 – **Addr:** Berlin-Adlershof, Rudower Chaussee 116. **Cable:** Fernsehfunk Berlin. **Te:** 642021 – **L.P:** Intendant: H. Adameck. Prgr. Leitung: W. Heynowski. Sendeleitung: D. Schmolz. Techn. Leitung: R. Kramer.
Stations: Berlin E5 – Brocken E6 – Cottbus E4 – Helpterberg E3 – Inselberg E5 – Karl Marx-Stadt E8 – Leipzig E9 – Marlow E8 – Schwerin E11 – Dresden E10 – **D.Prgr: Test-tr's** approx. 11.30–15.00, 16.00–17.00. **Prgr's** approx: Mo–Fri 09.00–11.30, 15.00–16.00, 17.00–22.00. Sat 09.00–11.30, 13.00–23.00. Sun 09.00–22.00.
Pye T.V.T, GB: Studio equip, OBV.

GIBRALTAR

GIBRALTAR TELEVISION (Comm.)

Addr: Office: 28 John Mackintosh Square, Gibraltar. **Studios:** Television House, Queensway, Gibraltar. **Cable:** Geeteevee. **Te:** 777 – **L.P:** Dir. Gen: C. E. Prescott. Dir. Tec: R. Bolton – **Station:** chE6 200/50W H – **D.Prgr:** 19.00–22.00.
The Marconi Compagny Ltd, GB: 1× 3W tv-tr, 1 Amplifier 50W-Ant.

GREAT BRITAIN

BRITISH BROADCASTING CORPORATION

The BBC's Television Service is an integral part of the British Broadcasting Corporation – **Addr. and L.P:** See Sound Broadcasting.

Stat ons:	ch	kW		Stat ons:	ch	kW	
Divis	1	12	H	Rowridge[9]	3	1–100ø)	V
Crystal Palace[1]	1	200	V	Blaen-plwyf (W. Wales)	3	1–3ø)	H
Thrumster[6]	1	0.25–7ø)	V				
Sheffield	1	0.05	H	Morecambe Bay	3	0.16–5.3ø)	H
Llandrindod Wells	1	1.3	H	Swindon	3	0–0.14ø)	H
Redruth	1	1.3–10ø)	H	Sandale	4	10–28ø)	H
Llanddona	1	0.2–5.4ø)	V	Les Platons[4]	4	1	H
Dover	2	0.05–1.4ø)	V	Sutton Coldf.	4	100	V
Holme Moss[2]	2	100	V	Folkstone	4	0.0005–0.035ø)	H
Brighton	2	0.04–0.4ø)	V				
Londonderry[8]	2	0.5–1.5ø)	H	Meldrum	4	4–17ø)	H
N.Hessary T.	2	1.5–15ø)	V	Hastings	4	0.002–0.013ø)	H
Rosemarkie	2	5.4–20ø)	H				
Oxford	2	0.1–0.65	H	Mannigtree	4	0.5–4.5ø)	H
Kirk o'Shots[3]	3	100	V	Wenvoe	5	100	V
Tacolneston[5]	3	2–4ø)	H	Pontop Pike	5	12	H
Ashkirk	1	3–18ø)	V	Douglas[7]	5	0.18–2.8ø)	V
Ballachulish	2	0.014–0.11ø)	V	Peterborough	5	1	H
				Orkney	5	4–14ø)	V
Kinlochleven	1	0.0006–0.005ø)	V	Fort William	5	1.6	H
				Okan	4	0.36–3.2ø)	V
Skegnew	1	0.12	H				

[1] London. [2] Nr. Huddersfield. [3] C. Scotland. [4] Channel Islands. [5] Norwich. [6] N. E. Scotland. [7] Isle of Man. [8] N. Ireland. [9] Isle of Wight. ø) Directional transmitting aerial.
D.Prgr: All stations: Trade Test tr's: Mo–Sat 10.00–13.00. Prgr. (hours approx): Mo–Fri 10.00–12.00, 14.00–14.40. For Schools (during term-time), 14.00–15.30; 17.00–23.05. Sat 13.45–23.00. Sun 14.00–18.15, 19.00–23.00.
F.Pl: The BBC has been authorised to start a second TV prgr. on UHF on 625 lines as opposed to the existing prgr. on VHF on 405 lines. This second prgr. which is to be called BBC-2 will start in April 1964 for viewers in the London area and it is expected that by 1966 it will be extended to 75 percent of the United Kingdom, giving a planned alternative prgr. to BBC-1.
A series of colour TV demonstrations were conducted in July 1963 with a view to assisting Western European broadc. authorities to decide on the best system. If a decision is reached on this matter by the International Radio Consultative Committee at a special meeting due to take place in February 1964, it will be possible to introduce a limited amount of colour TV in BBC-2 by early 1965.

The Marconi Company, Ltd, G.B, delivered tr's: Ballachulish 2×10W, 2×100W, Beckley (Oxford) 2×10W, 2×100W, Divis 1×5, 1×2kW, Fo. William 2×10, 2×500W, Llandona (Anglesey) 2×10, 2×500W, Manningtree 2×10, 2×500W, Meldrum 1×5, 1×2kW, Morecambe Bay 2×10, 2×100W, No. Hessary Tor 1×5, 1×2kW, Norwich 2×5, 1×2kW, Pontop Pike 1×5, 1×2kW, Redruth 2×10, 2×100W, Rosemarkie 1×5, 1×2kW, Rowridge 2×5, 1×2kW, Sandale 1×5, 1×2kW, Swindon 1×50, 2×100W, Wenvoe 1×5, 1×7½kW.
Pye TVT, GB: Tr's, studio equip, OB.V.

INDEPENDENT TELEVISION AUTHORITY (I.T.A.) Comm.

FI: Prgr. contractors financed solely from adv. revenue. I.T.A. financed solely from rentals paid by contractors – **Ad:** 6 mins. per h averaged over the day. Max. in any 1 h 7 mins – **Addr:** 70 Brompton rd, London, S.W.3. **Te:** Knightsbridge 7011 – **L.P:** Chmn: The Rt. Hon. Lord Hill of Luton, P.C. Dir. Gen: Sir Rob. Fraser, O.B.E.

Stations: chB	ch	Po.	kW(ERP)	Area served
Croydon	9	V	400	London
Lichfield	8	V	400	Midlands area
Winter Hill	9	V	100	Norths area
Emley Moor	10	V	200	Norths area
Black Hill	10	V	475	C. Scotland
St. Hilary	10	V	200	S. Wales, W. England
Chillerton Down	11	V	100	So. England
Dover	10	V	100	So. England
Burnhope	8	H	100	No. Ea. England
Mendlesham	11	H	200	Ea. Anglia area
Black Mountain	9	H	100	No. Ireland
Strabane	8	V	100	No. Ireland
Stockland Hill	9	V	100	So. We. England
Caradon Hill	12	V	200	So. We. England
Caldbeck	11	H	100	The Borders
Selkirk	13	V	25	The Borders
Durris	9	H	400	N. Ea. Scotland
Mounteagle	12	H	50	N. Ea. Scotland
Fremont Point	9	H	10	Channel Islands
Presely	8	H	100	We. and No. Wales
Arfon	10	H	10	We. and No. Wales
Moel-y-Parc	11	V	25	We. and No. Wales

D.Prgr: Trade transm: W 10.00–14.30, 15.30–17.00. For schools (during term time) Mo–Fri 14.30–15.30.
Prgrs: Mo–Fri 17.00–23.30, Sat 13.15–23.30. Sun 11.00–12.00, 14.00–23.30 – **Independent Television News Ltd,** TV House, Kingsway, London, W.C.2 – Provides the main news bulletins for all ITA Areas – **Independent Television Companies Association,** TV House, Kingsway, London, W.C.2 – The Association acts on behalf of all prgr. companies on certain matters of common interest – **Prgr. Companies: ABC Television Ltd,** TV House, Mount Street, Manchester 2. Te: Deansgate 4597 – **Associated Rediffusion Ltd,** TV House, Kingsway, London, W.C.2. Te: Holborn 7888 – **Associated Television Ltd,** ATV House, 17 Great Cumberland Place, London W.1. Te: Ambassador 8040 – **Granada TV Network Ltd,** Granada TV Centre, Quay Street, Manchester 3. Te: Deansgate 7211 – **Scottish Television Ltd,** Theatre Royal, Hope Street, Glasgow. Te: Glasgow Douglas 9999 – **TWW Ltd,** Pontcanna Studios, Cardiff. Te: 26633 – **Southern Television Ltd,** Southern Television Centre, Northam, Southampton. Te: 28582 – **Tyne Tees Television Ltd,** The Television Centre, City Road, Newcastle-upon-Tyne. Te: 610181 – **Anglia Television Ltd,** Anglia House, Norwich. Te: 28366 – **Ulster Television Ltd,** Havelock House, Ormeau Rd, Belfast 7. Te: 28122 – **Westward Television Ltd,** Derry's Cross, Plymouth. Te: 69311 – **Border Television Ltd,** The Television Centre, Carlisle. Te: 25101 – **Grampian Television Ltd,** Queen's Cross, Aberdeen. Te: 53553 – **Channel Television Ltd,** The Television Centre, Rouge Bouillon, St. Helier, Jersey, C.I. Te: 23451 – **Wales (West & North) Television Ltd,** Wales Television Centre, Western Ave, Cardiff.
AmpexVideotape (TM Ampex), USA: BBC (Belfast, Bristol, Kingswood, London, London (A.P.), Manchester), BBC (TV Cont.) (London), Ulster TV (Belfast), TWW (Bristol), TWW (Cardiff), Granada (Chelsea), Scottish TV (Glasgow), Assc. Redif. (London), Assc. TV (London), ATV (London), ABC (Manchester), Granada (Manchester), Tyne Tees (Newcastle), Anglia TV (Norwich), Southern TV (Southampton), ABC (Teddington), Assc. Redif. (Wembley).
The Marconi Company Ltd, G.B, delivered to **ITA: TV tr's:** Aberdeen 2×4, 2×1sW, Black Hill 2×2kW, 2×625W, 4 Amplifiers, Black Mountain 1×4, 1×1kW, Brynychain 4×10, 4×500W, amplifiers, Burnhope 1×4, 1×1kW, Carlisle 2×4, 2×1kW, Chillerton Down 2×4, 2×1kW, Croydon 1×2kW, 1×625W, 2 Amplifiers, Dover 1×4, 1×1kW, Emley Moor 1×2kW, 1×625W, 2 Amplifiers, Inverness 1×4, 1×1kW, Moel-y- Parc 2×10, 2×500W, Amplifiers, Selkirk 4×10W, 4×500W, Amplifiers, St. Hilary 2×18kW, Winter Hill 2kW, 625W, 2 Amplifiers – **Antennas:** Brynychain, Carlisle, Inverness, Moel-y-Parc, Selkirk – **Studio equip:** Aberdeen, Carlisle, Inverness, Moel-y-Parc – **OBV:** Associated Rediff. (London) (3), ABC TV (London) (3), Associated TV (London) (1), Tyne-Tees TV (Newcastle) (1).
AKG, Austria, delivered studio equip. (recorders, microphones) to: BBC TV, Associated-Rediffusion Ltd, Associated TV Ltd, Granada

TV, ABC TV, Grampian TV, Scottish TV, Tyne Tees TV, Anglia TV, Southern TV, TWW Ltd, Westward TV, Ulster TV, Irish TV, Independent TV News.
Pye TVT, GB: delivered TV tr's to the different prgr. companies studio-equip: ABC TV, Alpha TV, Anglia TV, (also OBV), Associated TV(ATV) (also OBV), Associated Rediffiusion(AR) (also OBV), Grampian TV, Independent TV News(ITN), Southern TV, Scottish TV(also OBV), Television for the West and Wales(TWW), Tyne Tees TV and Granada TV OBV.

HOLLAND

NEDERLANDSE TELEVISIE STICHTING (N.T.S.)

Addr: P.O. Box 10, Hilversum. **Cable:** Televisie. **Te:** 0 2950/16851 – The Dutch prgr's are provided by the N.T.S. and the broadcasting societies as mentioned under Sound Broadcasting – **Board of the N.T.S:** Chmn: E. A. Schüttenhelm. Secr: H. W. van Doorn L.L.D. Members: H. Algra, A. A. Bakker L.L.D, J. C. Bongenaar, J. B. Broeksz, Prof. Dr. T. T. ten Have, Dr. J. A. de Koning, Miss W. M. W. van Lanschot L.L.D, A. J. J. van der Made M.E, J. W. Rengelink, A. B. Roosjen L.L.D, A. H. van de Veen L.L.D, S. K. van der Zee.
Stations: Lopik chE4 100/20kW H – Roermond E5 50/10kW H – Smilde E6 50/10kW H – Goes E7 5/1kW H – Markelo E7 30/6kW H – Huisduinen E10 1/0.2kW H – **D.Prgr:** Sun 18.30–21.30, Mo 18.30–21.45, Tues 18.30–21.20, Wed 16.00–16.45, 18.30–21.35, Thurs 13.30–14.30, 18.30–21.50, Fri 18.30–21.35, Sat 14.00–16.45, 18.30–21.50.
Ampex Videotape (TM Ampex), USA.
The Marconi Company Ltd, GB, delivered OBV (1).
Telefunken AG, Germany, delivered studio equip. (recorders).

HUNGARY

MAGYAR RADIO ES TELEVIZIO (Go.)

Addr: Television Direction, V. Szabadságter 17, Budapest. **Te:** 113-200. **L.P:** Dir. Gen: K. Haynal. Dir: F. Kulcsár. Dir. Tec: R. Kerpel.

Stations:	ch	kW			ch	kW
Budapest I	I	30/10	H	Miskolc	IX	0.05/0.025H
Pécs	II	1/0.4	H	Sopron	IX	0.05/0.025V
Tokaj	IV	1/0.25	H	Szentes	XI	20/4 H
Kékes	VIII	4/0.8	H	Kabhegy	XII	20/4 H

D.Prgr: Tues, Wed, Thurs, Sat: 17.00–22.00. Sun: 09.00–11.00, 15.00–22.00.
Pye TVT, GB: Studio equip, O.B.V.

IRELAND

TELEFIS ÉIREANN (TV sce. maintained by national broadc. sce.)

FI: By license payments and adv – **AD:** 10% of prgr. hrs – **Addr:** Donnybrook, Dublin 4. **Te:** 693111 – **L.P:** See Sound Broadc.
Stations: [1] 625 lines. [2] 405 lines.
Mt. Kippure[2] 184.75/181.25Mc 100/25kW H – Truskmore[2] ch204.75/201.25Mc 100/25kW V – Kippure[1] 207.25/213.25Mc 100/20kW H – Maghera[1] 53.75/59.75Mc 100/20kW H – Mt. Leinster[1] 191.25/197.25 Mc 100/20kW H – Mullaghanish[1] 175.25/181.25Mc 100/20kW V – Truskmore[1] 215.25/221.25Mc 100/20kW V – **D.Prgr:** 17.00–23.15
Ampex Videotape (TM Ampex), USA.
The Marconi Company Ltd, GB, delivered 1×2kW, 1×10kW tr's, studio equip.
Pye T.V.T, GB: Tr's, ant, studio equip.

ITALY

RADIO-TELEVISIONE ITALIANA (see sound broadc).

FI. & AD: See Sound Broadcasting – **Addr:** Direzione Centrale TV, Via del Babuino 9, Roma – **L.P:** Dir. Prgr. TV: Dr. Sergio Pugliese. Dir. Tec. TV: Eng. Gino Orsini.
Stations. The National Prgr:
o=H. v=V. The first letter in the brackets indicate the channels (see page 221).
PIEMONTE: *Bardonecchia (D-o) – *Borgo S. Dalmazzo (E-o) – Candoglia (E-v) – Canelli (F-v) – *Cannobio (E-o) – *Ceva (G-o) – Clavasana (F-v) – *Colle Croce di Ceres (F-o) – *Cortemilia (F-v) – Demonte (D-o) – *Dogliani (G-v) – *Domodossola (H-v) – *Fenestrelle (D-o) – *Garessio (A-v) – Gavi (E-v) – Limone Piemonte (D-o) – *Mondovi (F-o) – *Monte Banchetta (E-v) – Ormea (E-o) – Ovada (D-o) – Pian di Mozz o (D-o) – Pont Canavese (D-o) – Premeno (D-v) – San Colombano (H-v) – *San Maurizio di Frassino (D-v) – Santa Maria Maggiore (E-o) – Sestriere (G-o) – Susa (E-o) – Torino (C-o) – *Torino Collina (H-v) – Trivero (F-o) – Valduggia (D-o) – Varallo Sesia (H-o) – Varzo (G-o) – Villadossola (F-o) – *Villar Perosa (H-o).
VALLE D'AOSTA: *Aosta (D-o) – *Champoluc (D-v) – Col de Courtil (E-v) – Col de Joux (F-o) – Cogne (H-o) – *Courmayeur (F-o) – Gressoney (D-o) – M. Colombo (F-o) – *Plateau Rosa (H-o) – *Saint Vincent (G-o) – Torgnon (D-o).
LOMBARDIA: *Airuno (F-v) – *Aprica (F-v) – *Bellagio (D-o) – *Bienno (D-v) – *Bocca di Croce (F-v) – Bravadina (D-o) – *Breno (F-o) – *Chiavenna (H-o) – Clusone (F-o) – *Como (F-v) – *Edolo (G-v) – Esmate (E-o) – *Gardone Val Trompia (E-o) – Gavardo (H-o) – Lecco (H-o) – Leffe (E-v) – Madonna di Oga (F-o) – Marone (F-v) – Milano (G-o) – *M. Creò (H-o) – M. Marzio (F-o) – *M. Padrio (H-o) – M. Penice (B-o) – Naggio (F-o) – Nossa (D-o) – Oggiono (D-v) – Ossimo (A-o) – Pigra (A-o) – Poira (G-v) – Ponte Chiasso (D-v) – *San Pellegrino (D-v) – Sandalo (F-o) – *Sondrio (D-v) – Stazzona (E-v) – *Tirano (A-o) – *Valle San Giacomo (F-o) – Valtesse (E-v).
SARDEGNA: Alghero (H-v) – Arbus (H-o) – *Arzana (H-v) – Bitti (E-o) – *Cagliari (H-v) – *Campu Spina (F-o) – Castelsardo (E-v) – Cuglieri (G-v) – Desulo (F-o) – Fluminimaggiore (H-v) – Gairo (H-v) – Gonnesa (E-v) – Iglesias (E-o) – *Marmilla (E-v) – M. Limbara (H-o) – *M. Ortobene (A-o) – M. Serpeddi (G-o) – Narcao (E-o) – Nule (G-o) – *Ogliastra (E-o) – Orosei (H-o) – Ozieri (E-v) – P. Badde Urbara (D-o) – *S. Antioco (B-v) – *Sarrabus (D-v) – *Sassari (F-o) – *Sennori (H-v) – Siniscola (H-v) – Tertenia (F-o) – Teulada (E-o).
TRENTINO-ALTO ADIGE: Badia (F-o) – *Bassa Val Lagarina (F-o) – *Bolzano (D-o) – *Borgo Val Sugana (F-o) – *Brennero (F-o) – Brunico (H-o) – Cima Palon (H-o) – *Cima Penegal (F-o) – Col Alto in Badia (H-o) – Col Plagna (F-o) – *Conca di Tesino (E-o) – Fiera de Primiero (E-o) – *Forte Carriola (F-o) – *Grigno (H-v) – Lasa (F-o) – Madonna di Campiglio (F-o) – Malles Venosta (E-o) – *Marcia di Pusteria (D-v) – Masoorsi (D-v) – Merano (H-o) – Mezzolombardo (D-v) – *Mione (D-v) – Molveno (H-o) – Monte Elmo (F-o) – Mori (H-o) – *Paganella (G-o) – Passo Gardena (E-o) – *Pinzolo (E-o) – *Plose (E-o) – Prato allo Stelvio (G-o) – Predonico (E-o) – Renon (H-v) – Riva del Garda (E-v) – *Rovereto (E-o) – San Martino di Castrozza (H-v) – Santa Giuliana (D-v) – *Tesero di Fiemme (E-o) – Tione (E-o) – Val di Cembra (D-v) – Val di Fassa (H-o) – Val di Pejo (E-o) – Val di Sole (H-o) – *Val Gardena (D-v) – Val Venosta (A-o) – Valle Isarco (H-v) – Ziano di Fiemme (F-o).
VENETO: *Agordo (E-o) – *Alleghe (G-o) – *Alpago (E-o) – Arsiè (E-o) – Arsiero (H-v) – *Asiago (F-v) – Auronzo (D-o) – Calalzo (F-o) – Col del Gallo (B-v) – Col Perer (F-o) – Col Visentin (H-o) – Comelico (G-o) – *Cortina d'Ampezzo (D-v) – *Feltre (B-o) – *Follina (G-v) – *Fonzaso (G-o) – Gosaldo (G-v) – *Malcesine (H-v) – M. Celentone (B-o) – M. La Gusella (H-o) – Monte Pianar (F-v) – Monte Raga (H-v) – M. Venda (D-o) – Montecchio Maggiore (F-o) – *Pieve di Cadore (A-o) – Recoaro (G-v) – *S. Pietro di Cadore (D-v) – Sappada (F-o) – Soverzene (F-v) – Tarzo (B-v) – Valdagno (F-v) – Valle del Boite (F-o) – *Valle del Chiampo (E-o) – Valli del Pasubio (F-o) – *Valpantena (G-o) – Valstagno (F-o) – Verona (F-o) – Vicenza (G-v) – *Vittorio Veneto (F-o).
FRIULI-VENEZIA GIULIA: Ampezzo (H-v) – Cesclans (E-o) – Claut (F-o) – Colle di Ul (D-o) – Forni Avoltri (H-o) – Forni di Sopra (E-o) – Forni di Sotto (G-o) – *Gorizia (B-v) – Moggio Udinese (G-o) – *Monte Prisnig (F-o) – *Monte Santo di Lussari (E-o) – Monte Tenchia (G-o) – Ovaro (D-v) – Paularo (H-o) – Pontebba (B-o) – Ravascletto (E-o) – Tolmezzo (B-o) – *Trieste (G-o) – *Trieste Muggia (A-v) – Udine (F-o).
LIGURIA: *Bordighera (C-o) – Borzonasca (B-v) – Bric Mondo (F-o) – Busalla (F-o) – Cairo Montenotte (G-v) – *Camaldoli (F-v) – Cengio (B-v) – Finale Ligure (E-v) – Genova Polcevera (D-v) – *Genova Righi (B-o) – *Imperia (E-v) – *La Spezia (F-o) – *Levanto (F-o) – Masone (E-v) – *M. Burot (E-o) – *M. Capenardo (E-o) – M. Lagchicciole (F-v) – M. Tugio (F-o) – Oregina (G-v) – Pieve di Teco (F-o) – Polgevera (D-v) – Portofino (H-o) – Riomaggiore (E-v) – Ronco Scrivia (H-v) – San Nicolao (A-v) – *Sanremo (B-o) – Sassello (F-o) – Savona (F-o) – Taggia (G-v) – Torriglia (G-o) – *Val di Vara (E-v).
EMILIA-ROMAGNA: *Bagno di Romagna (G-v) – Bardi (H-o) – *Bedonia (G-v) – *Bertinoro (F-v) – *Bologna (G-v) – *Borgo Tossignano (H-v) – Borgo Val di Taro (E-o) – Brisighella (H-v) – *Casola Valsenio (G-o) – *Castelnuovo nei Monti (G-v) – Castrocaro (B-o) – Civitella di Romagna (H-v) – Farini d'Olmo (F-o) – *Fornovo di Taro (A-v) – Langhirano (F-o) – Ligonchio (E-o) – Loiano (E-v) – Marzabotto (H-o) – Mercato Saraceno (G-o) – Modigliana (G-o) – Monchio Delle Corti (H-o) – M. Santa Giulia (F-v) – *Montese (H-v) – Morfasso (E-v) – Neviano degli Arduini (H-v) – Pavullo nel Frign. (G-o) – Pellegrino Parmense (F-v) – Pievepelago (G-o) – Porretta (G-v) – Rocca S. Casciano (F-o) – Salsomaggiore (F-o) – S. Benedetto Val di Sambro (F-o) – *Santa Sofia (E-v) – Vergato (B-v).
TOSCANA: Abetone (E-o) – Aulla (H-v) – Bagni di Lucca (B-o) – Bagnone (E-v) – *Bassa Garfagnana (F-o) – *Borgo a Mozzano (E-v) – Camaiore (B-v) – Carrara (G-o) – *Casentino (B-o) – Casola in Lunigiana (B-o) – *Castiglioncello (G-o) – *Colle Val D'Elsa (G-v) – *Firenze (F-o) – Firenzuola (H-o) – Fivizzano (E-o) – Gaiole in Chianti (B-o) – Garfagnana (G-o) – Gorfigliano (H-v) – Greve (H-v) – *Lunigiana (G-v) – *Marradi (G-v) – *Massa (H-v) – Minucciano (E-v) – M. Argentario (E-o) – *M. Pidocchina (F-v) – M. Serra (D-o) – *Mugello (H-o) – Palazzuolo sul Senio (F-v) – Piazza al Serchio (A-v) – *Pietrasanta (A-o) – Pieve S. Stefano (F-v) – Piombino (G-v) – Pontassieve (E-o) – Quercianella (F-v) – Rufina (F-o) – *San Cerbone (G-o) – *S. Giuliano Terme (G-o) – *S. Marcello Pist. (H-v) – Santa Fiora (B-o) – *Sassi Grossi (F-v) – Scarlino (F-o) – Seravezza (G-o) – Stazzema (B-o) – Talla (F-o) – Vagli di Sotto (B-v) – Vallecchia (E-o) – Val Taverone (A-o) – *Vernio (B-o) – *Zeri (B-o).
MARCHE: Acquasanta Terme (F-o) – Ancona (G-v) – Antico di Maiolo (H-v) – Arquata del Tronto (D-v) – *Ascoli Piceno (G-o) – Belvedere di Sorbano (B-o) – *Camerino (F-v) – Castelsantangelo (F-o) – E Sanatoglia (D-o) – *Fabriano (G-o) – Fermo (B-v) – Fiuminata (H-v) – Frontignano (G-v) – *Macerate (G-o) – M. Conero

(E-o) – M. Nerone (A-o) – Muccia (D-v) – Pioraco (D-v) – Punta Bore Tesino (D-o) – *San Paolo (B-v) – S. Severino Marche (H-o) – *Santa Lucia in Consilvano (H-v) – Sarnano (F-v) – Sassoferrato (D-v) – Sentino (H-v) – Serra San Quirico (H-v) – Serravalle di Chienti (G-o) – Tolentino (B-v) – Ussita (E-v) – *Visso (D-o).

UMBRIA: *Cascia (E-v) – *Foligno (E-o) – Guadamello (E-v) – Gubbio (E-v) – M. Peglia (H-o) – *Norcia (G-o) – *Sellano (F-v) – *Spoleto (F-o) – *Terni (F-v).

LAZIO: Acquapendente (F-o) – Altipiani Arcinazzo (H-v) – Amaseno (A-o) – Amatrice (F-v) – *Antrodoco (E-v) – Bolsena (F-v) – Borgorose (G-v) – *Campo Catino (F-o) – Campo di Mele (A-v) – Carpineto Romano (D-v) – *Cassino (E-o) – Civitacastellana (F-o) – Fillettino (E-o) – *Fiuggi (D-o) – *Fondi (H-v) – Formia (G-v) – Gaeta (E-o) – Isola Liri (E-v) – Itri (F-v) – Lenola (E-v) – Leonessa (D-v) – M. Favone (H-o) – *Pescorocchiano (D-o) – Rocco d'Arce (F-v) – Roma (G-o) – *Segni (E-o) – *Settefrati (F-v) – *Sezze (F-o) – Subiaco (D-o) – *Terminillo (B-v) – Vallecorsa (F-v) – Vallepietra (E-v) – *Velletri (E-v) – Vicalvi (D-v).

ABRUZZI-MOLISE: *Anversa degli Abruzzi (A-o) – Barrea (E-v) – Campli (G-v) – Campobassa (E-v) – *Campo Imperatore (D-o) – Campotosto (G-v) – Capracotta (E-o) – Caramanico (G-o) – Casoli (D-o) – Castel di Sangro (G-o) – *Cercemaggiore (F-v) – Civita D'Antino (G-v) – *Fano Adriano (C-o) – Fucino (D-v) – *Isernia (G-v) – *L'Aquila (F-v) – Larino (D-v) – Lucoli (F-o) – *Monte Cervaro (D-v) – *M. Cimarani (F-o) – Monteferrante (A-o) – M. Patalecchia (E-o) – M. San Cosino (G-v) – *Montorio al Vomano (G-v) – *Oricola (E-o) – Pescara (F-o) – *Pescasseroli (D-o) – *Piana di Navelli (H-v) – *Pietra Corniale (D-v) – Pietragrnde (B-o) – Riccia (E-o) – Roccarasao (F-o) – Scanno (H-v) – *Schiavi d'Abruzzo (G-o) – *Sulmona (E-v) – *Teramo (D-v) – Torricella Peligna (G-o) – Vasto (G-v) – Villa Ruzzi (G-v).

CAMPANIA: Agnone (G-o) – *Airola (E-o) – *Benevento (G-o) – Campagna (G-o) – Caposele (H-v) – Capri (F-v) – Fontegreca (E-v) – Forio d'Ischia (H-v) – *Golfo di Policastro (F-o) – *Golfo di Salerno (E-v) – Gragnano (G-v) – M. Chiunzi (F-v) – M. Faito (B-o) – M. Vergine (D-o) – Napoli-Camaldoli (E-o) – Nusco (F-o) – Padula (D-v) – *Postiglone (G-o) – Presenzano (F-v) – Quindici (G-o) – *S. Agata de Goti (H-v) – S. Maria a Vico (F-o) – Santa Tecla (F-o) – Sorrento (F-o) – *Teggiano (F-o) – Tramonti (H-o) – Valle Telesina (E-v).

PUGLIE: *Bari (F-v) – Castro (F-o) – Martina Franca (D-o) – *Monopoli (G-v) – M. Caccia (A-o) – *M. d'Elio (B-v) – M. Sambuco (H-o) – *Palmariggi (E-v) – *Salento (H-v) – S. Marco in Lamis (F-v) – S. Maria di Leuca (E-o) – Sannicandro Garg. (E-v) – Vieste (H-v).

BASILICATA: Anzi (F-v) – *Baragiano (G-v) – Balvano (F-v) – *Chiaromonte (H-o) – *Lagonegro (H-o) – Marsico Nuovo (F-o) – Matera (E-v) – Moliterno (E-o) – *Monte Macchia Carrara (E-o) – Pescopagano (G-v) – *Potenza (H-o) – Seta de Calvello (H-v) – Spinoso (G-v) – Tempa Candore (B-v) – Tramutola (E-v) – Trecchina (E-v) – Tursi (F-o) – *Viggianello (F-v) – Terranova Pollino (E-v).

CALABRIA: Acri (H-v) – *Capo Spartivento (H-o) – Casignana (F-v) – *Catanzaro (F-v) – *Chiaravalle Centrale (E-v) – Conflenti (F-o) – Crotone (B-v) – Gambarie (D-o) – Grisolia (G-v) – Guardavalle (G-o) – Lago (F-v) – Laino Castello (H-v) – *Longobucco (G-v) – Mammola (B-o) – Mesoraca (G-v) – Montebello Jonico (B-o) – Monte Scavo (A-v) – M. Scuro (G-o) – Morano Calabro (E-o) – Nocera Tirinese (F-o) – Oriolo Calabro (E-o) – *Paterno Calabro (A-v) – Pazzano (D-v) – *Pizzo (H-v) – Plati (D-v) – Roseto Capo Spulico (F-v) – S. Giovanni in Fiore (E-v) – S. Marco Argentano (H-o) – *Sellia (G-v) – *Serra S. Bruno (H-v) – Solleria (D-v) – *Valle Crati (E-v).

SICILIA: Agrigento (H-o) – *Alcamo (E-v) – *Belvedere de Siracusa (G-o) – Borgetto (G-o) – *Capo d'Orlando (F-o) – Carini (F-v) – Castelbuono (F-o) – *Castiglione di Sicilia (G-v) – Cinisi (G-v) – Corleone (G-v) – Fondachello (H-v) – Galati Mamertino (C-i) – *Ispica (D-v) – Lipari (H-v) – Mistretta (D-v) – Modica (H-o) – *Monreale (D-v) – M. Cammarata (A-o) – M. Lauro (F-o) – M. Pellegrino (H-o) – M. Soro (E-o) – Nicosia (H-v) – *Noto (B-o) – Novara di Sicilia (F-o) – *Pantelleria (G-v) – Piraino (D-v) – *Porto Empedocle (E-o) – Punta Raisi (D-v) – Roccella Valdemone (B-o) – Sinagra (F-v) – *S. Maria del Bosco (D-v) – S. Stefano Quisquina (H-o) – Scicli (H-v) – Termini Imerese (E-v) – *Tortorici (G-v) – *Trapani (H-v).

D.Prgr: W 12.30–15.05 ("Telescuola") – for schools, 16.00–17.00 (Childrens H.), 17.30–22.00 approx. **N:** 17.30, 19.30, 22.00. Sun 09.15–11.00, 15.00–23.00.

Second Programme:

St.	ch	St.	ch	St.	ch
*Aosta	27	Milano	26	M. Peglia	31
*Bologna	28	M. Argentario	24	M. Pellegrino	27
*Catania	28	M. Beigua	32	M. Penice	23
*Catanzaro	38	M. Caccia	25	M. Sambuco	27
Cima Penegal	27	M. Cammarata	34	M. Scuro	28
*Col de Courtil	34	M. Conero	26	M. Serpeddi	30
*Como	29	M. Faito	23	M. Serra	27
*Firenze	29	M. Favone	29	M. Soro	32
Gambarie	26	M. Lauro	24	M. Venda	25
*L'Aquila	24	M. Limbara	32	M. Vergine	31
Martina Franca	32	M. Luco	23	Paganella	21
*Messina	29	M. Nerone	33	Pescara	30
Pietra Corniale	32	Punta Badde		Sassari	30
Portofino	29	Urbara	27	Torino	30
Potenza	33	Roma	28	*Trieste	31
		*Saint Vincent	31	Udine	22

Sun 18.00–19.25; 21.05–23.30 approx. W 21.05–24.00 approx.

Link connections with foreign countries: Italy-France: Milano-Monte Bignone-Pic de l'Ours – Italy-Switzerland: Milano-Monte Generoso-Uetliberg – Italy-Yugoslavia: Trieste-Monte Nanos-Ljubjana – **Publ:** Radiocorriere, weekly.

The Marconi Company Ltd, G.B, delivered: 1 × 2.5kW tr's, 1 Amplifier (Pisa, Rome) – **Pye TVT, GB:** Studio equip, OBV.

Telefunken AG, Germany, delivered: 1 × 10kW tr.

Fabbrica Italiana Apparecchi Radio S.p.A. has sold television repeaters, amplifiers, antennas to the TV-stations in the above list of stations marked*.

Furthermore to the following stations not mentioned above: Antegna, Badia Calavena, Bagnara, Camaiore, Carpineto Romano, Cima Palon, Crotone, Comelico, Campione d'Italia, Custanaci, Capo Sele, Col Visentin, Castrocaro, Candoglia, Coldirodi, Fucino, Formia, Gavi, Malles Venosta, M. Calvario, M. Tenchia, M. Scavo, M. Scrisi, Magnano, Osilo, Polcevera, Piombino, Premeno, Pieve Vergonte, Palo del Colle, Pian di Mozzio, Poira, Porretta Terme, Ronco Scrivia, Reggio Calabria, Seravezza, Sestriere, Susa, S. Guiliana, Siena, S. Remo, M. Bignone, Strazzona, Spinoso, Scilla, S. Zeno, Senise, San Pietro, Sellano Monreale, Tolmezzo, Tarvisio, Trieste Belvedere, Taggia, Villadossola, Varallo Sesia, Val di Fassa, Valtournanche, Val Venosta, Vasto, Val di Sole, Val di Cembra, Vibo Valentia, Valli del Pasubio.

LUXEMBOURG

TELE LUXEMBOURG (Comm.)

FI: By adv – **Addr:** See Sound Broadcasting – **L.P:** Dir. Gen: M. Felten. Dir. Prgr: J. Luc – **Station:** Def. 819, chE7 100/20kW H – **D.Prgr:** Sun, Thurs, Sat 16.00–21.30, Mo, Tues, Wed, Fri 18.00–21.30.

Ampex Videotape (TM Ampex), USA.

Pye TVT, GB: OBV.

MALTA

THE MALTA TELEVISION SERVICE LTD. (Comm.)

A subsidiary of Rediffusion Ltd, London. (Priv. Comm.). **Fi:** Adv. revenue and contributions for certain prgrs. prescribed by Malta Broadc. Authority.

Addr: P.O. Box 384, Guardamangia. **Cable:** Television Malta. **Te:** Cen 25051. **L.P:** Gen. Mgr: E. A. Hamilton-Hill, O.B.E. Asst. Mgr: F. R. Yardley, M. Brit. I.R.E. Chief Eng: W. A. Fenton.

Station: ch E10 4.8/1.2kW H – **D.Prgr:** 17.00–21.00.

Pye TVT, GB: Studio equip – **The Marconi Company Ltd., GB:** 1 × 2, 1 × 0.5kW-tr, studio equip.

MONACO

TÉLÉ MONTE-CARLO (Comm.)

FI: By adv – **Addr:** 16 Blvd. Princesse Charlotte, Monte Carlo. **Cable:** Tele Carlo. **Te:** 305940 – **L.P:** Dir. Gen: M. Micheo. Dir. Tec: R. Leguet.

Stations: ch F2, F10 50/12.5kW H – **D.Prgr:** D 18.30–22.00 – Monoscope identification W 14.00–16.00.

NORWAY: See Sound Broadc.

POLAND

POLSKIE RADIO I TELEWIZJA (Go.)

FI: By state – **Addr:** Telewizja, Plac Powstanców Warzawy 7, Warszawa. **Cable:** Telewar. **Te:** 6-52-71. (Foreign Rel. 630-93) – **L.P:** Pres: W. Sokorski. Vicepres. Engineering: K. Kozlowski. Dir. Prgr: S. Stefanski. Chief Eng: J. Rutkowski.

Main Stations: Pol. H. ch OIRT.

	ch	kW		ch	kW
Bydgoszcz	1	100/20	Poznan	9	100/20
Warszawa	2	7/1.4	Lublin	9	100/20
Zielona Gora	3	200/40	Krakow	10	200/40
Olsztyn	6	8/1.6	Gdánsk	10	100/20
Lódź	7	2.5/0.5	Zgorzelec	11	0.8/0.16
Katowice	8	225/56	Wroclaw	12	123/25
Koszalin	8	0.4/0.3	Szczecin	12	8/1.6
Białystok	8	100/20	Rzeszów	12	100/20

Satellite Stations:	ch	W		ch	W
Kielce	1	2000	Lubán	9	4
Kalisz	2	20	Swieradów	9	3
Dzialoszyn	3	80	Duszniki	10	4
Kamienna Góra	3	5	Jelenia Góra	10	40
Krynica	3	4	Czarnków	11	6
Slupsk	3	20	Radom	11	7.5
Wloclawek	4	40	Tarnów	11	15
Konin	5	45	Tomaszow Mazowiecki	11	40
Gorlice	6	80	Zakopane	12	20
Nowy Sacz	6	15	Zywiec	12	70
Nowa Ruda	7	2			
Klodzko	8	4			

Link connections: Warszawa – Gdánsk – Kaliningrad (U.S.S.R.). Warszawa, Olsztyn, Warszawa, Bydgoszcz, Koszalin – Warszawa, Lódź, Katowice, Wroclaw, Poznan, Zielona Góra, Szczecin, Wroclaw, Zvicina (Czechoslovakia) – Wroclaw, Lugstein (G.D.R.), Katowice, Krakow, Rzeszów – Warszawa, Bialystok – Warszawa, Lublin.
The Marconi Company Ltd. GB: 2×2½kW tr's (Katowice), 2 Amplifiers.
Pye T.V.T, G.B.: Studio equipment (OBV).

PORTUGAL

RTP-RADIOTELEVISÃO PORTUGUESA S.A.R.L. (Comm.)

Port. Go: 1/3 of the shares – **FI:** License payments and adv – **Addr: Head office:** Rua de S. Domingos (á Lapa), 26 Lisboa. **Studio in Lisboa:** R. Particular, á Alameda das Linhas de Torres, 44, **Porto:** Santo Ovideo, Vila Nova de Gaia. **Cable:** Telvisao. **Te:** 666134 – **L.P:** Pres. of the Board of Dir's: Dr. L. de Athayde. Gen. Mgr: Eng. B. da Silva. Central Mgr: Eng. F. Conceição. Head External Rel. Div: Dr. A. de Bivar.
Stations: ch E: Lisboa (Monsanto) 7 100/20kW H – Porto (Monte da Virgem) 9 100/20kW H – Montejunto 6 1/0.2kW H – Monchique (Foia) 5 6.5/1.3kW H – Lousa 3 60/12kW H – Nogueira ch 11 40/8W H – Evora ch 8 1/0.2W H.
D.Prgr: W 19.30–24.00. Sun 12.30–13.00, 18.30–24.00.
Ampex Videotape (TM Ampex), USA.
Telefunken AG, Germany: delivered studio equip (recorders).

RUMANIA

RADIODIFUZIUNEA TELEVIZUNEA ROMINA (Go.)

Addr: Studioul de Televiziune, Str. Mohére 2, Bucuresti – **Stations:** Pol: H. ch: R – **Main St:** Bucuresti ch R2 20/10kW – **Rel. st's:** Bacau ch 1 0.6/0.4kW, Brasov ch R3 0.1kW, Pitesti ch R4 0.025kW, Birlad ch R8 0.01kW, Craiova ch R8 0.04kW, Victoria ch R7 0.02kW – **D.Prgr:** Sun 06.50–10.00, 17.00–20.30, Mo, Tues, Thurs, Sat 17.00–20.00, Wed 15.00–17.00.
The Marconi Company Ltd, G.B, delivered 1 OBV.
Telefunken AG, Germany, delivered studio equip. (recorders).

SPAIN

TELEVISION ESPAÑOLA (Go.)

Addr: Av. de la Habana 77, Madrid.
L.P: Vice. Dir. Gen. TV: D. F. Gomez Bollesteros. Dir. Prgr: D. J. *Luis Colino. Dir. Tec:* D. M. *Rodriguez.*
Stations: Madrid-Navacerrada ch E2 200/80kW H – Madrid-Chamartin ch E4 2/1kW H – Zaragoza (La Muela) ch E32/1kW H – Bilbao ch E4 4/2kW – Barcelona ch E4 24/5kW H – Guadalcanal (Sevilla) E4 60/20kW H – Santiago (Coruña) E4 60/20kW H – Aitana (Alicante) E3 60/20kW H.
Rel. st's located in the following areas:
Monte Caro (Tortosa), Garbi (Valencia), Puig Major (Mallorca), Cristo Cadenas (Oviedo), Castillo (Burgos), Monte Ibio (Torrelavega), Monte Ulia (San Sebastian), San Cristobal (Pamplona), M. Castelo (Vivero), Pena Moa (Coruña), Sabadell (Orense), Inoges (Calatayud), Ponferrada, Barbastro (Huesca), San Roque (Algeciras), Chinchilla (Albacete), Alquaire (Lerido), Mancha Real (Jaen), Puerto Herrera (Logrono), Gejar (Granada), Cuesta de la Reina (Malaga), Pena Vina (*Sama de Langreo), Alto de la Madera (Gijon), Alto de los Mosquitos* (Mieres), Jacas, Monte de San Gregorio, Mibar, Cordoca, Monzon (Berbegal), Beajain-Villafranca de Oria, Cadiz, Ceuta, La Guandia-Rosal (Pontevedra), Bumarraga, Guardo.
D.Prgr (Madrid, Barcelona): 14.45–16.00, 20.00–24.00.
Ampex Videotape (TM Ampex), USA: Madrid, Barcelona.
AKG, Austria: studio equip. (recorders, microphones) Barcelona, *Madrid* – **Pye TVT, GB:** *Studio equip,* OBV.

SWEDEN

SVERIGES RADIO

Swedish TV; run by Sveriges Radio, has the same non-comm. and official status as the broadc. service – **FI:** By license payments.
Addr: Radiohuset, Oxenstiernsgatan 2, Stockholm. **Postal Addr:** Box 955, Stockholm 1. **Cable:** Broadcast. **Te:** 631040 – **L.P:** See Sound Broadcasting.
Kungl. Telestyrelsen (The Board of Telecommunications) has the responsibility for the distribution of the prgrs. produced by Sveriges Radio and has also charge of the collection of license fees – **Addr:** Stockholm 16. **Cable:** Gentel. **Te:** Trunk calls: 236060 local calls: 236040 – **L.P:** See Sound Broadcasting.
Stations: ch E, H, kW (E.R.P.). u=st's beyond the Stockholm plan.

Name	ch	kW		ch	kW
Anderstorp u)	8	0.15 V	Grebbestad u)	6	0.15 V
Arvidsjaur	5	60	Gäddede u)	6	0.15
Boden	4	60	Gällivare	9	60
Bollnäs	6	15	Gävle	9	15
Borlänge	10	60	Gravarne u)	5	0.15 V
Borås	6	*1.5*	*Göteborg*	9	60
Bäckefors	8	60	Halmstad	7	15
Emmaboda	8	60	Haparanda	8	60
Falun u)	5	0.01 V	Hudiksvall u)	10	0.15 V
Hultsfred u)	9	0.15	Solletteå/Hallsta u)	10	0.15
Hälsingborg	9	1	Stockholm	4	60
Härnösand	10	0.15	Storuman	10	60
Hörby	2	100	Strömstad	5	0.15
Idre u)	10	0.15	Sundsvall	5	60
Jönköping	8	0.15	Sunne	7	60
Karlskrona	9	3 V	Sveg	3	60
Karlstad	5	1 V	Sysslebäck u)	10	0.15
Karesuando u)	10	0.15	Särna u)	7	0.15
Kiruna	6	60	Tranås u)	8	0.15 V
Köpmanholmen u)	9	0.15 V	Trollhättan	7	1
Laisvall u)	7	0.01	Transtrand	6	0.15 V
Linköping	9	1	Tärnaby u)	6	0.15
Loffstrand	4	0.15 V	Täsjö	9	60
Lycksele	8	1.5	Uddevalla	2	1 V
Malmö	10	1	Uppsala	6	3
Malung u)	5	0.15 V	Varberg	10	1 V
Mjällom u)	8	0.15 V	Visby	9	25
Moliden u)	10	0.15 V	Vislanda	5	5 V
Mora	8	3 V	Vännäs	2	60
Motala	7	3	Västervik	6	25
Moudoslompolo u)	4	0.15 V	Västerås	8	10
Norrköping	5	60	Växjö	5	5 V
Nässjö	10	60	Ånge	8	1.5
Pajala	7	15	Åre u)	10	0.15 V
Seitevare u)	7	0.15 V	Örebro	2	60
Skellefteå	6	10	Örnsköldsvik	6	3 V
Skövde	3	15	Östersund	4	60
Sollefteå	7	15	Östhammar u)	10	0.15 V

TV-stations under construction: 1) before Jan. 1st 1964 – 2) before July 1st 1964 – s=satellite – * uncrease power.

	ch	kW		ch	kW
1) Arjeplog (s)	9 V	0.15	1) Svinesund (s)	2	0.01
1) Enafors (s)	8 V	0.15	1) Torpshammer(s)	9 V	0.15
1) Gävle *	9	60	1) Vitsand (s)	10 V	0.001
1) Höljes (s)	4	0.001	2) Borås*	6	3
1) Karlshamn (s)	3 V	0.15	2) Björkliden (s)	9 V	0.15
1) Kisa (s)	4 V	0.15	2) Halmstad*	7	60
1) Kramfors (s)	10	0.15	2) Kälarne (s)	9 V	0.15
1) Lycksele *	8 V	60	2) Pajala*	7	60
1) Mölndal (s)	7 V	0.01	2) Skövde*	3	60
1) Nolby (s)	7 V	0.001	2) Sollefteå*	7	60
1) Ragunda (s)	10 V	0.15	2) Stordalen (s)	7 V	0.15
1) Ronneby (s)	7 V	0.001	2) Torneträsk (s)	4 V	0.15
1) Satisjaure (s)	5 V	0.001	2) Uddevalla*	2 V	5
1) Stöde (s)	10 V	0.001	2) Vassijaure (s)	3	0.15

D.Prgr. (exc. extra sport-events): Sun approx. 08.30–09.30, 17.00–21.00. Mo 09.00–09.25 and 12.00–12.25 (for schools), 13.00–14.00, 17.00–17.20, 18.30–approx. 21.00. Tues 09.00–09.25, 12.00–12.25 (for schools), 15.30–15.50, 17.00–17.30, 18.30–approx. 21.00. Wed 08.00–08.20, for schools 09.00–09.25 and 12.00–12.25 and 17.00–18.00, 18.30–approx. 21.00. Thurs 13.00–14.00, 17.00–17.30, 18.30–approx. 21.00. Fri 08.30–08.55 and 09.00–09.25 and 12.00–12.25 for schools, 15.30–15.50, 18.00–approx. 21.00. Sat 17.30–approx. 21.30.

The Marconi Company Ltd, G.B: TV tr's: Boden 2×10, 2×2kW, Storuman 2×4, 2×1kW, Bäckefors 2×4, 2×1kW, Sundsvall 2×4, 2×1kW, Västerås 2×4, 2×1kW, Sunne 2×4, 2×1kW, Östersund 2×10, 2×2kW, Emmaboda 2×5, 2×1kW, Nässjö 2×5, 2×1kW, Arvidsjaur 2×5, 2×1kW, Borlänge 2×4, 2×1kW, Visby 2×4, 2×1 kW, Lycksele 2×5, 2×1kW, Västervik 2×4, 2×1kW, Halmstad 2×5, 2×1kW, Vännäs 2×10, 2×2kW, Ånge 2×5, 2×1kW, Härnösand 2×500, 2×250W, Karlstad 2×500, 2×250W, Skellefteå 2×5, 2×1 kW, Växjö 2×500, 2×250W, Motala 2×500, 2×250W, Loffstrand 50W, Sysslebäck 50W, Grebbestad 50W, Strömstad 50W, Östhammar 50W, Gäddede 50W, Köpmanholmen 50W, Sollefteå 50W, Arjeplog 50W, Storlien 50W, Torneträsk 2×50W, Stordalen 2×50W, Björkliden 2×50W, Vassijaure 2×50W, Arc 50W, Tranås 50W.
AKG, Austria: delivered studio equip. (recorders, microphones).
Ampex Videotape (TM Ampex), USA.

SWITZERLAND (Confederation)

SWISS TELEVISION (Go.)

FI: By the proceeds from the TV license-fees, divided between the SBC and PTT at the rate of 70:30 per cent – **Addr:** Swiss Television, 26 Kreuzstrasse, Zürich. **Cable:** Telesuisse. **Te:** Zürich (051) 34.80.30, Geneva (022) 24.72.50, Lugano-Besso (091) 32021 – **L.P:** Dir. Swiss TV: E. Haas. Head German Prgr: Dr. G. Frei. Head French Prgr, Dep. Dir: R. Schenker. Head Italian Prgr: F. Marazzi. Head Tec: H. R. Züst. Head Adm: R. Wydler. Head Prgr. Coordination: F. R. Tappolet.
Stations: *Ch E. Po: H.*
German Prgr: *Bantiger (Berne) ch2 30/6kW – Uetliberg (Zürich) ch3 60/12kW – Säntis ch7 15/3kW – St. Chrischona (Bâle) ch10 10/2kW – Niederhorn ch12 5/1kW(exp) – Valzeina ch10 5/1kW.

Boosters PTT: Rigi (Lucerne) ch6 100/20W, St. Gallen ch10 10/2W, Männlichen ch10, Buchserberg ch8, Davos ch8, Glarus ch11, Gotschnagrat ch11, Klewenalp ch10, Ziegelbrücke ch5. **Private:** Feldis (Grisons) ch6 40/8W – Trans (Grisons) ch8 50/10W – Ruschein (Grisons) ch9 110/22W – Luven (Grisons) ch7 15/3W – Zermatt-Gornergrat ch12 – Zermat-Winkelmatten ch5.
French Prgr: La Dole ch4 144/28.8kW – La Chaux-de-Fonds (Jura) ch9 4.5/0.9kW – Les Ordons ch7 6kW.
Boosters PTT: Mt.-Pelerin (Léman) ch11 180/36W, Ravoire (Valais) ch9 1800/360W, Bantiger/Berne ch10 2/0.4kW, Val de Travers ch5 50/10W, Moron ch11 90/18W, Ste. Croix ch7. **Private:** Veysonnaz (Sion) ch6 400/80W – Verbier ch8 5/1W.
Italian Prgr: Mt. Ceneri ch5 4.5/0.9kW – Mt. San Salvatore ch10 10/2kW – **Boosters PTT:** M. Morello ch6 30/6W, Cardada ch12, Castione ch9, Iragna ch2 – **Private:** Biasca ch6 50/10kW – Personico ch8 2W/0.4W.
D.Prgr: German: Sun: Morning: Outside broadc. rel. sce, twice a month, 15.30–17.30, 18.30–21.45, W (Tues no tr's): 19.00–21.30. Wed, Thurs, Sat: 16.00–17.00 – **French:** Sun: Morning: outside broadc. rel. sce, twice a month, 15.30–17.00, 18.00–21.55 Mo, Wed, Thurs, Fri: 18.30(Mo 18.15)–approx. 22.10. Wed, Thurs, Sat: 16.00–approx. 17.30 Tues: no tr's – **Italian:** Sun: Morning: Outside broadc. service of the Mass, once a month 15.30–17.30, 19.00–20.15. Mo–Sat (Tues no tr): 19.00–21.30 – **Fixed Prgr's:** Thurs: TVplay in German. Fri: TVplay in French. D: Telejournal in German, French, Italian.
Relay facilities: A microwave link across the Alps. It runs from Gempen, near Bäle (northern border) to Froburg-Bantiger-Jungfrau (12.200 ft.) – Mt. Generoso (southern part of Switzerland) on the one side, and the German and Italian TV systems on the other side – A second microwave link runs from Uetliberg–Froburg–Bantiger–Romont – La Dôle. It has been extended to Cuiseaux for the programme exchange with France – Third link: Uetliberg–Säntis–Pfänder (Austria)
Fabbrica Italiana Apparecchi Radio SpA, Italy, has sold different TV repeaters, antennas, amplifiers to the following st's: Bantiger, Mt. Morello, Ravoire, St. Gallen, Val de Travers – **The Marconi Company Ltd, GB,** delivered OBV(2) – **Brown Boveri,** Switzerland, delivered: Uetliberg 2×10/2kW, La Dôle 10/2kW, Rigi 2×4/0.8kW, Säntis 1.5/0.3kW, S. Salvatore 2×1.5/0.3kW – **Sondor,** Switzerland: delivered studio equip. (Zürich, Geneva, Lugano).
Ampex Videotape (TM Ampex), USA (Geneva, Zürich).
Telefunken AG, Germany, delivered studio equip (recorders).
Pye TVT, GB: Studio equip, OBV.

U.S.S.R.

STATIONS: chR––. Def: 625. Polarisation: Horizontal.

THE SOVJET TELEVISION (Go.)

Addr's of the most important TV studios: Tsentralnaja studija televidenija Moskva, ul. Sjabolovka 53 (Dir: I. Inozemtsev) – Leningradskaja studija televidenija Leningrad ul. Malaja Sadovaja 2 – Kijevskaja studija televidenija Kijev, Krestjatik 24 – Minskaja studija televidenija Minsk, ul. Kalinina 6 – Rizjskaja studija televidenija Riga, ul. B. Nometnu 62 – Tallinskaja studija televidenija Tallin, ul. Kreitsvalda 14 – Bakinskaja studija televidenija Baku, Parkovajaul – Tasjkentskaja studija televidenija Tasjkent, ul. Navoi 69 – Jerevanskaja studija televidenija Jerevan, pr. Ordzjonokidze 22 – Tbilisskaja studija televidenija Tbilisi pr. Rustaveli 12 – Vilnjusskaja studija televidenija Vilnius, studija televidenija – Alma-Atinskaja studija televidenija Alma-Ata, studija televidenija – Kisjinjovskaja studija televidenija Kisjinjov, studija televidenija.
Stations: Television Centres: Channels R.
Moscow ch1 15/4kW – Moscow ch3 7.5/3kW – Moscow ch8 (colour).
D.Prgr: ch1: W: 09.00–10.00, 14.30–20.00(approx). Sun 09.00–19.45 – **ch3:** D 15.40–17.00(Sat 18.00) – **ch8:** Thurs 12.30–13.00.
RSFSR: Armavir ch1 – Barnaul ch3 – Biysk ch1 – Bryansk ch2 – Vorkuta ch3 – Voronezh ch1 – Vladivostok ch1 – Gorkiy ch2 – Zzhevsk ch2 – Irkutsk ch3 – Kazan ch1 – Kaliningrad ch4 15.00–19.30 – Kemerovo ch5 – Kirov ch3 – Krasnodar ch5 – Krasnajarsk ch2 – Kuybyshev ch3 – Leningrad ch1 15/4kW – Murmansk ch3 – Nalchik ch1 5/2kW – Novosibirsk ch2 – Norilsk ch1 – Omsk ch1 5/2kW – Penza ch4 – Perm ch1 – Petrozavodsk ch2 – 5/2.5kW – Pyatigorsk ch2 – Rostov ch1 – Rubtsovsk ch2 – Saratov ch1 – Sverdlovsk ch3 5/2kW – Sochi ch1 – Volgograd ch4 – Stalinogorsk ch5 – Tomsk ch1 5/2kW – Tyumen ch2 – Ulyanovsk ch5 – Ufa ch1 5/2.5kW – Cherepovets ch5 – Chelyabinsk ch4 15.00–18.00 – Yaroslavl ch2 – **Ukrainian SSR:** Dnepropetrovsk ch5 5/2kW – Zaporozhye ch6 – Kiev ch2 15.00–20.00 (Sat 10.30–11.00, 13.30–14.00) 15/4kW – Lugansk ch2 – Lvov ch1 – Nikolayev ch2 – Odessa ch5 15/4kW – Stalino ch4 15/4kW – Simferopol ch3 – Kharkov ch3 7/3.5kW – Kherson ch3 2/1kW – **White Russian SSR:** Gomel ch3 15.00–20.00 – Minsk ch1 5/2kW – **Kazakh SSR:** Alma Ata ch3 5/2.5kW. **D.Prgr:** D 12.30–17.00. Sun also 05.00–06.30 – Karaganda ch1 – Ust Kamenogorsk ch1 – **Azerbajan SSR:** Baku ch3 5/2kW. **D.Prgr:** 14.05–18.30 – **Lithuanian SSR:** Vilnius ch4 15/4kW – **Armenian SSR:** Yerevan ch1 5/2kW V – **Moldavian SSR:** Kichinev ch3 15/4kW 16.00–20.00 – **Latvian SSR:** Riga ch3 5/2kW – **Estonian SSR:** Tallinn ch2 15/4kW – **Uzbek SSR:** Tashkent ch3 5/2.5kW 12.00–16.00 (News 12.00, 15.00) – **Georgian SSR:** Tbilisi ch4 5/2kW – **Kirghiz SSR:** Frunze ch1.

Projected Stations: Television Centres:
RSFSR: Abakan ch1 – Astrakhan ch1 Barnaul (1964) – Berezniki – Grozny – Ulan – Ude – Yoshkar Ola – Komsomolsk ch1 – Magnitogorsk ch3 – Makhackala – Petropavlovsk Kamchatka – Khabarovsk – Kursk-Saransk – Magadan ch1 – Yuzhno-Sakhalinsk – Arkhangelsk – Ordzhonikidse – Cheboksary – Yakutsk – Orenburg – Syktyvkar – Stavropol – Chita – **Ukrainian SSR:** Vinnitsa – Stanislav – **White Russian SSR:** Vitebsk – **Kazakh SSR:** Petropavlovsk – Aktyubinsk ch1 – Dzhez – Kazgan ch1 – Balhash – **Uzbek SSR:** Nukus – **Tadzijk SSR:** Dushambé ch1 – **Turkmen SSR:** Ashkhabad ch1 – Nebit Dag – Krasnovodsk – **Azerbajan SSR:** Nakhichevan – Kirovobad.
The Marconi Company Ltd GB, delivered OBV(2) to Moscow, OBV(1) to Leningrad. **Pye TVT, GB:** Studio equip, OBV.

YUGOSLAVIA

RADIO TELEVISION YOUGUSLAVE (Go.)

FI: By license payments – **AD:** 45 mins. per week.
Addr's: Radiotelevision Yougoslave: 70B, Kidriča, Beograd. **Te:** 43-693. **Telex:** 01-259 – **Radiotelevision Beograd:** 2, Hilendarska Beograd. **Te:** 24.214. **Telex:** 01-288 – **Radiotelevision Zagreb:** 4, Jurišlićeva, Zagreb. **Te:** 37-741. **Telex:** 02-126 – **Radiotelevision Ljubljana:** 17, Tavčarjeva, Ljubljana. **Te:** 31.922. **Telex:** 03-102 – **L.P: Radiotelevision Yougoslave:** Pres. Adm. Com: Z. Vukovič. Secr. Gen: Dr. I. Pustišek. Head for Rel: Mrs. O. Vojvodič. Pres. Prgr. Com. TV: D. Fortic. Secr. Prgr. Com. TV: M. Milosavljevic. Pres. Tech. Com: S. Rojec. **Radiotelevision Beograd:** Dir. Gen: Z. Vukovič. Dir. Prgr. TV: V. Stefanovic. Dir. Tec: R. Žižič. **Radiotelevision Zagreb:** Dir. Gen: I. Bojanic. Dir. Prgr. TV: D. Štrbac. Dir. Tec: V. Trs. **Radiotelevision Ljubljana:** Dir. Gen: B. Mikos. Dir. Prgr. TV: D. Fortic. Dir. Tec: Z. Pipan.
Stations in operation (625 lines, sound: FM, Po. H chE)

Beograd	ch	kW		ch	kW
Avala	6	12/2.5	Kovor	9	5/1W
Crveni Čot	10	30/6	Jesenice	8	5/1W
Jastrebac	5	100/20W	Mozirje	10	8/1.6W
Crni Vrh	11	35/7W	Skalnica	11	35/7W
Ovčar	8	500/100W	Celje	6	35/7W
Majdanpek	8	1W	Pohorje	8	35/7W
Tupiznica	8	0.05/0.025	Piran	11	0.25W
Tara	7	0.05/0.025	Zagorje	8	0.25W
Uzice	8	0.0005	Idrija	8	10/2W
Sevojno	9	0.0005	**Titograd**		
Goles	7	0.0005	Lovčen	10	50/10W
Zagreb			Niksic	8	10/2W
Sljeme	9	10/2.5	Kotor	8	0.5/0.1W
Psunj	5	40/10W	Budva	8	0.5/0.1W
St. Grič	7	40/10W	**Sarajevo**		
Srdj	7	40/10W	Sarajevo	8	5/1W
Kozjak	6	40/10W	Bjelasnica*	6	5/1W
Skopje			Majevica	5	5/1W
Solunska Gl.	6	140/75W	Tuzla	7	5/1W
Pelister	10	60/30W	Banovići	8	0.5/0.1W
Vodno	9	30/15W	Kozara	6	5/1W
Ljubljana			Zenica	6	5/1W
Krvavec	5	6/1.2	Vareš	10	0.5/0.1W
Kum	11	6/1.2	Zvornik	7	1/0.2W
Nanos	6	1.6/0.4	Zavidoviči	7	0.5/0.1W
Velenje	8	5/1W	Ljubija	10	0.5/0.1W
Tržič	6	0.15/0.03W			

D.Prgr: Common Prgr. for Beograd, Zagreb, Ljubljana: Sun: 10.00–11.00, 19.00–21.20 approx, Mo: 17.00–21.05 approx, Tues: no regular nat. prgr, Wed: 16.30–20.50 approx, Thurs: 09.00–10.00, 17.00–21.00 approx, Fri: 16.30–21.00 approx, Sat: 17.00–21.20 approx. In addition weekly 30 h of extraordinary prgr. (sport events, etc.) – **Test-tr's:** Beograd, Zagreb, Ljubljana – daily one h before the beginning of tr's.
Fabbrica Italiana Apparecchi Radio SpA, Italy, has sold different TV repeaters, antennas, amplifiers to the following st's: Bjelasnica, Banovići, Borasnica, Kozara, Leotar, Majevica, Mostar, Pljesivica, Sarajevo, Skopje, Tusnica, Tuzla, Velez.
The Marconi Company Ltd., GB: 50 W-tr. (Skopje).

ALGERIA

RADIO ALGERIE (Go.)

Addr: See Sound Broadc – **L.P:** St. Mgr: R. Bounab. Dir. Tec: A. Laghouati – **Stations:** Def. 819. Algiers ch 11 20/5kW H, d – Oran ch 8 50/12W H – 12.5/1.25kW H – Tizi-Ouzou ch 7 0.1/0.025kW (repeats ch 11 Algiers) – Chrea ch 6 (satellite) 5/1.25kW H – Constantine ch 7 0.2/0.05kW H.
D.Prgr's: 12.00–13.30, 19.00–23.00

CANARY ISLANDS (Spanish)

In the course of the winter 63/64 a TV st. will be built. The tr. will be placed in Izana (Tenerife) and the studios in Las Palmas (Gran Canaria) and Sta. Cruz de Tenerife. Owner: Television Espanol.

CONGO (Rep.)

RADIODIF. TELEVISION CONGOLAISE (Go.)

Addr: B.P. 2241, Brazzaville – **Station:** 199.25/205.75Mc 2kW H. **D.Prgr:** Exp. tr's D 18.00–20.00.
Pye TVT, GB: Studio equip.

EGYPT

U.A.R. BROADCASTING CORPORATION OF CAIRO (Go.)

FI: By license payments and adv – **Addr:** Radio & TV House, Maspero Str, Cairo. **Cable:** Kahivision. **Te:** 812070 – **L.P:** see Sound Broadc. **Stations:** Ch E; Sound FM: Vision AM (CCIR Standard).

	ch	kW			ch	kW	
Cairo 1	5	100/20	H	Kassasin	9	3.5/0.7	H
Cairo 2	7	20/4	H	Ismailia	6	3.5/0.7	H
Cairo 3	9	20/4	H	Suez	9	3.5/0.7	H
Alexandria 1	6	24/5	H	Bush	11	6/1.2	H
Alexandria 2	9	6/1.2	H	Maghagha	6	6/1.2	V
Mansoura	8	16/3.2	H	El-Minya	9	6/1.2	H
Tanta	10	135/27	H	Mallawi	5	3.5/0.7	H
Assuan	5	12/2.7	H	Qusiya	7	3.5/0.7	H
Port Said	10	25/5	H				

D.Prgr: First Prgr: Cairo 1, Alexandria 1, Mansoura, Kassasin, Ismailia, Suez, Bush, Maghagha, El-Minya, Mallawi, Qusiya: D 09.00–10.00, 15.00–22.00. Fri 11.00–22.00 – **Second Prgr.** (Cairo 2, Alexandria 2, Tanta): D 15.00–22.00 – **Third Prgr.** (Cairo 3): 17.00–21.30. Assuan: 16.00–21.00.
Projected St's: Damietta ch 9 6/1.2kW H – Assiut ch 10 6/1.2kW H.

GHANA

GHANA BROADCASTING CORPORATION (Go.)

A Television Sce. with 4 st's of 20kW (ERP) each is expected to be in operation in 1964 (CCIR 625 standards) at Accra, Kumasi and Sekondi – Takoradi and a television studio complex at Accra.
The Marconi Company Ltd, G.B, delivered TV tr's (1 × 1, 1 × 5kW) to Adjankote, Jamasi, Kisi, OBV Accra (2); studio equip.

IVORY COAST

RADIODIFFUSION TELEVISION IVOIRIENNE (Go.)

Addr: B.P. 1879, Abidjan. **Te:** 6775. **Cable:** Radiocotivoire – **L.P:** Mgr: G. Tanoh. Dir. Tec: G. Aaronson – **Station:** Abidjan 207.25/213.75Mc 10/2kW H – **D.Prgr:** 19.45–20.10. **Test:** 16.30–19.30.
Projected St's 10/2kW: Man ch7H, Bondoukou ch3H, Bouaffle ch9V.

KENYA

KENYA BROADC. CORPO. (Indep.) Comm, adv. (6 mins. per h).
Addr: Box 30456, Nairobi. **Te:** 26653 – **L.P:** See Sound Broadc.
Stations: chE4 15/3kW H – **D.Prgr:** D 15.00–19.30 (English, Swahili).
The Marconi Company Ltd. GB, delivered 1 × 1kW, 1 × 5kW tr. Hillcrest, 1 × 3kW tr. Nairobi, ant, studio equip.
AKG, Austria, delivered studio equip. (recorders, microphones).

MAURITIUS (British)

There are plans for the establishment of a TV service in 1964.

MOROCCO (Kingdom of)

RADIODIFFUSION TELEVISION MAROCAINE (Go.)

Addr. & L.P: See Sound Broadcasting – **Stations:** Rabat 187.25/192.75 Mc 4/1kW H – Casablanca 211.25/216.75Mc 4/1kW H – Zerhoun 163.25/168.75Mc 0.2/0.1kW H – Cap Spartel 171.25/176.75Mc (rel. st) – Marrakech 179.25/184.75Mc 0.05/0.01kW H – Tanger 195.25/200.75Mc (rel. st) – Sarsar 203.25/208.75Mc (rel. st) – Fés 211.25/216.75Mc 0.05/0.01kW H – **D.Prgr:** French: D 19.30–21.00. **Arabic:** D 21.00–24.00.

MOCAMBIQUE (Port. Ea. Africa)

Television under consideration – installation may commence 1964.

NIGERIA

NIGERIAN TELEVISION SERVICE (Comm-for-Nigerian Go.)
Ad: 16.55–21.30 – **Addr:** Victoria Island, Lagos. **Te:** 26391. **Cable** Nivision – **L.P:** Dir. Gen: J. R. Myers. Mgr: R. Bower. Dir. Tec J. Burrell. Comm. Dir: D. Grant.
Station: Lagos chE10 40/8kW H – **D.Prgr:** 16.55–22.00.
Ampex Videotape (TM Ampex), USA.

EASTERN NIGERIA TELEVISION (ENTV): **Addr & L.P:** See Sound Broadc – **Station:** Enugu ch E2 50kW H, Aba ch E2 60kW H. **D.Prgr:** 18.00–23.00.
Pye TVT, GB: Tr, ant, studio equip.

WESTERN NIGERIA RADIOVISION SERVICE
FI, AD and L.P: See Sound Broadcasting.
Stations: Abafon (Lagos) chE3 15/4kW H – Ibadan chE4 1.5/0.4kW H.
D.Prgr: W 12.00–13.00, 17.25–21.00; Sun 17.25–21.00.
The Marconi Company, Ltd, GB: TV tr's: Abafon 1 × 5, 1 × 3kW, Ibadan 1 × 500, 1 × 250W. **Ant:** Abafon, Ibadan – **OBV:** Ibadan (1).

R. KADUNA TELEVISION (RKTV).

Addr: RKTV, Box 250, Kaduna, No. Nigeria. **Cable:** Radionorth. **Te:** 2294 – **L.P:** See Sound Broadc – **Station:** JAJI chE4 10/2kW H (System Brown Boveri, Switzerland) – **D.Prgr:** 20.00–23.00 (exc. Sat).

RHODESIA

FEDERAL BROADCASTING CORP. (Go. Comm.)

The Corpo. is due to be dissolved during 1964 and replaced by three seperate organizations in So. Rhodesia, No. Rhodesia, Nyasaland. The controlling authority for TV in the Federation is the Federal Broadcasting Corp, who owns and operates the TV transmitters. **Rhodesia Tele-Vision Ltd.** is the prgr. contractor to the FBC and is charged with day-to-day running of the TV prgr. sce.
Addr: Box 2696, Salisbury. **Cable:** Broadcasts. **Te:** 25685 – **L.P:** Dir. Gen: J. McClurg. Chief Eng: J. M. Reeves, M.I.E.E., M.I.R.E.
Stations: C.C.I.R. system: Salisbury chE4 20/4kW – Bulawayo chE3 3/0.6kW H – Kitwe chE4.
D.Prgr: D approx. 15.25–20.15, Sat 15.55–21.00. Sun 14.55–21.15.
Prgr. Contractor: Rhodesia Tele-Vision Ltd. (Comm.) Operates via income from adv's and pays FBC a fee for use of tr. Spot adv's totalling 10% of total transmitting times – **Addr:** R.T.V, P.O. Box HG 200. Salisbury, R.T.V. P.O. Box 777. Bulawayo, R.T.V, P.O. Box 1100, Kitwe – **L.P:** Gen. Mgr: J. Terry. Chief Eng: M. N. Smuts.

SENEGAL (Republic)

TELEVISION DU SENEGAL (Go.)

A TV St. will operate end of 1964 or early 1965 at Dakar: 625 lines, CCIR, ch K+(Band III) 0.1kW H – **D.Prgr:** to be 12 hrs per week – Later on st's at Thiés (20kW), St. Louis, Kaolack, Ziguinchor

SIERRA LEONE

SIERRA LEONE TELEVISION (Go.)

Ad: Comm. adv, spots accepted – **Addr:** Ministry of Information, Freetown – **L.P:** Gen. Mgr: V. Hallack. Chief Eng. Designate: A. Khanu – **Stations:** chE2 0.1kW H – **D.Prgr:** Mo-Fri 18.30–22.30. Sat/Sun 18.00–23.00.
Pye TVT, GB: Tr, ant, studio equip.

UGANDA (Rep.)

UGANDA TELEVISION SCE. (Comm – operated by Ministry of Inf. Broadc. and Tourism) – **Addr:** P.O. Box 4260, Kampala – **L.P:** Gen. Mgr: G. Blackledge. Dir. Tec: G. E. Toombs – **Station:** Kampala ch 10 60kW H – **D.Prgr:** 15.00–19.00.

UPPER VOLTA (Rep.)

VOLTA VISION (Go.)

Addr. & L.P: See Sound Broadcasting – **Station:** Ouagadougou band III (625 lines) ch4 175.25/181.75Mc 1/0.25kW V – **D.Prgr:** 19.30–22.00 – **Projected st's:** Koudougou band IV 1kW H – Bobotioulaiso band I 1kW H.

ASIA

ADEN (Federation of So. Arabia)

SOUTH ARABIAN TELEVISION SERVICE (Comm.)

Fi: Part advertising, part Go – **Ad:** 16.00–19.30 – **Addr:** See Sound Broadc. – **L.P:** Dir. Tec: D. A. Import.
Stations: CCIR Standards, 625 lines (to open spring 1964): Al-Aineh chE10 0.5kW V, Al-Bargh chE7 0.5kW H – Jabel Muzalkam chE4 0.5kW H – **D.Prgr:** 16.00–19.30. **Testtr's:** D 07.00–09.00, 13.30–15.30.

CAMBODIA

R. CAMBODGE-TELEVISION (Go.)

Addr. & L.P: See Sound Broadc.
Stations: Phnom Penh ch 8 5/2.5kW – Bokor ch 11 0.1kW (rel.).
Nippon Electric Company, Japan, delivered TV tr. (Phnom Penh), and studio equip.

THE PEOPLES REPUBLIC OF CHINA

Addr. & L.P: See Sound Broadcasting

Stations:	Vision	Sound		Vision	Sound		Vision	Sound
Peking	Mc	Mc		Mc	Mc		Mc	Mc
1st Prgr.	57.75	64.25	Harbin	49.75	56.25	Taiyuan	49.75	56.25
2nd Prgr.	77.25	83.75	Shenyang	93.25	99.75	Hofei	85.25	91.75
Shanghai	93.25	99.75	Changch.	57.75	64.25	Nanking	49.75	56.25
Tientsin	77.25	83.75	Canton	57.75	64.25	Wuhan	93.25	99.75
			Sian	49.75	56.25			

Relay st's and Exp. st's omitted.

TAIWAN (The Rep. of China)

TAIWAN TELEVISION ENTERPRISE (Comm.) – Addr: 990

Chung Cheng Rd, Taipei. **Cable:** Television – **L.P:** Gen. Mgr: T. S. Chou – **Station:** ch A7 5/2.5kW – **D.Prgr:** 09.00–14.00.

CYPRUS

CYPRUS BROADCASTING CORPORATION (Go, Comm.)

FI. & Addr: See Sound Broadc – **L.P:** Dir. Gen: V. I. Markides. Adm. Secr: I. Hadjiossif. Dir. TV prgr: G. Mitsides. Dir. Tec: P. T. Astreos. **Station:** Nicosia chE2 1.5/0.3kW H – **D.Prgr:** D exc. Mo, Thurs: 17.00–20.00. Testtr's: D exc. Mo: 08.00–10.00 – **F.Pl:** New tr. at Mt. Olympus: chE6 40/8kW V, Sina Oros: chE8 40/8kW V to operate at May/June 64, when Nicosia st. will cease operation.
The Marconi Company Ltd, GB, delivered 1 × 0.25kW, 1 × 0.5kW tr's.
Pye T.V.T, GB: Tr's, studio equip.

HONG-KONG (British)

REDIFFUSION TV HONG-KONG (Comm.)

Addr: P.O. Box 121, Hong Kong – Closed circuit 405 line network.
D.Prgr: Mo-Fri 09.00–16.30, Sat/Sun 06.00–16.30.
Pye T.V.T, GB: Studio equip.

INDIA

ALL INDIA TELEVISION (Go.)

Addr: Television Centre, All India Radio, Akashwani Bhawan, 5th Floor, Parliament Street, New Delhi I. **Te:** 30101 – **L.P:** Dir. TV Centre: R. Chander. Engineer-in-Charge: P. R. Desikachar.
Station: New Delhi chE4 10kW H.
D.Prgr: Social Education Prgr: Tues 13.30–14.10, Fri 13.30–14.40. July–March: For Schools: W: Lessons in Chemistry, Physics and Current Affairs for Higher Secondary Classes and lessons in English for sixth class – **Projected st:** Bombay – **Pub:** School TV Pamphlet (English) annual – **F.Pl:** The Sce. at Delhi is confined to 1) Social Education Prgr. for Community viewing at Tele-Clubs and 2) School TV lessons. The future plans envisage an increase in the number of Tele-Clubs. The number of Tele-Clubs at present is 180.
Ampex Videotape (TM Ampex), USA.

INDONESIA

TV REPUBLIK INDONESIA (Go.)

Ad: 12 min's a day – **Addr:** c/o Jajasan Gelora Bung Karno, Senajan, Djakarta. **Cable:** TVRI. **Te:** 71160 – **L.P:** See Sound Broadcast.
Station: Djakarta ch9 10/5kW V – **D.Prgr:** 12.00–14.00(Sat 15.00).
Nippon Electric Co. Ltd Japan: delivered TV-tr.

IRAN

TELEVISION OF IRAN (Comm.)

Addr: Box 1015, Av. Pahlavi, Tehran. **Cable:** Televiran. **Te:** 621101 – **L.P:** Dir. Gen: H. Sabet. Dir. Tec: Eng. H. Victory – **Stations:** Teheran chA3 4/0.8kW H – Abadan chA3 12/2.4kW – Ahwaz chA12 0.5kW (rel. Abadan) – **D.Prgr:** Tehran 13.30–21.30, Abadan: 14.30–20.30.

IRAQ

TV-STATION OF THE REP. OF IRAQ (Go.)

Addr: Ministry of Guidance, Broadc. House, Salhiya, Baghdad – **L.P:** See Sound Broadc – **Station:** Salhiya chE8 5/38kW H – **D.Prgr:** 07.00–08.00, 15.00–21.00 – **F.Pl:** TV st's in Baghdad, Mosul, Basrah, Kirkuk, Samara and Amara.
Pye T.V.T, GB: Tr, ant, studio equip, OBV.

JAPAN

NIPPON HOSO KYOKAI (Public Corporation, non-comm.)

Addr. & L.P: See Sound Broadcasting.
Monochrome-TV:
Stations: NHK operates two TV net's, General and Educ. each transmitting net. and reg. broadc. As of August 1st 1963 there is a total of 227 st's, 127 for the General TV net. and 100 for the Educ.
Call: JO-TV. **Po:** H exc. Kainan st. V – **Ch:** J – **Def:** 525 – **Color-TV:** System NTSC. [1]=General Sce. [2]=Educ. Sce.

Call	ch	kW/W
°) Sapporo		
[1]) IK	3	10
[2]) IB	12	10
Otaru		
[1]) –	11	75W
[2]) –	2	75W
Ashibetsu		
[1]) –	4	65W
[2]) –	2	65W
Hakodate		
[1]) VK	4	1
[2]) VB	10	1
Esashi		
[1]) –	9	0.1
[2]) –	2	0.1
Asahikawa		
[1]) CG	9	1
[2]) CC	2	1
Wakkanai		
[1]) –	9	0.25
Nayoro		
[1]) –	4	25W

Call	ch	kW/W
Rumoi		
[1]) –	4	0.1
[2]) –	2	0.1
Obihiro		
[1]) OG	4	1
[2]) OC	12	1
Kushiro		
[1]) PG	9	1
[2]) PC	2	1
Nakashibetsu		
[1]) –	4	25W
[2]) –	12	25W
Kitami		
[1]) KP	3	1
[2]) –	9	75W
Monbetsu		
[1]) –	9	0.1
Muroran		
[1]) IU	9	1
[2]) IT	2	1
Urakawa		
[1]) –	9	0.1
[2]) –	2	0.1

Call	ch	kW/W
°) Sendai		
[1]) HK	3	10
[2]) HB	5	10
Kesennuma		
[1]) –	2	0.1
[2]) –	10	0.1
Naruko		
[1]) –	4	2W
[2]) –	2	2W
Akita		
[1]) UK	9	5
[2]) UB	2	5
Odate		
[1]) –	4	0.1
[2]) –	8	0.1
Yuzawa		
[1]) –	3	90W
[2]) –	5	90W
Yamagata		
[1]) JG	8	3
[2]) JC	4	3

Call	ch	kW/W
Fukushima		
[1]) FP	9	3
[2]) FD	2	3
Wakamatsu		
[1]) HT	1	1
Taira		
[1]) –	4	40W
[2]) –	10	40W
Aomori		
[1]) TG	3	5
[2]) TC	5	5
Mutsu		
[1]) –	4	0.1
[2]) –	12	0.1
Hachinohe		
[1]) –	9	0.5
[2]) –	7	0.5
*Tokyo		
[1]) AK	1	50
[2]) AB	3	50
Hitachi		
[1]) -52(UHF)		0.1
Takahagi		
[1]) -51(UHF)		0.1
Nagano		
[1]) NK	2	1
[2]) NB	9	1
[1]) –	3	75W
[2]) –	3	75W
Yachiho		
[1]) –	4	3W
[2]) –	10	3W
Saku		
[1]) –	5	10W
[2]) –	3	10W
Matsumoto		
[1]) –	1	3W
[2]) –	3	3W
Ida		
[1]) –	4	0.25
[2]) –	3	0.25
Okayasuwa		
[1]) –	4	75W
[2]) –	8	75W
Nigata		
[1]) QK	8	5
[2]) QB	12	5
Takada		
[1]) –	3	75W
[2]) –	1	75W
Aikawa		
[1]) –	4	3W
[2]) –	9	3W
Koide		
[1]) –	3	0.1
[2]) –	11	0.1
Tsunan		
[1]) –	4	30W
[2]) –	10	30W
Itoigawa		
[1]) –	4	30W
[2]) –	9	30W
Kofu		
[1]) KG	1	3

Call	ch	kW/W
Fujiyoshida		
[1]) –	9	0.25
°) Nagoya		
[1]) CK	3	10
[2]) CB	9	10
Takayama		
[1]) –	4	30W
[2]) –	2	30W
Owase		
[1]) –	4	30W
[2]) –	12	30W
Nakatsugawa		
[1]) –	4	100W
[2]) –	12	100W
Kanazawa		
[1]) JK	4	3
[2]) JB	8	3
Nanao		
[1]) –	9	100W
[2]) –	5	100W
Wajima		
[1]) –	3	30W
[2]) –	12	30W
Shizuoka		
[1]) PK	9	1
[2]) PB	2	1
Yoshiwara		
[1]) –	4	14W
[2]) –	8	14W
Shimada		
[1]) –	1	0.1
[2]) –	3	0.1
Hamamatsu		
[1]) DG	4	1
[2]) DC	8	1
Fukui		
[1]) FG	9	3
[2]) FC	3	3
Tsuruga		
[1]) –	6	30W
[2]) –	12	30W
Ouo		
[1]) –	5	35W
[2]) –	1	35W
Toyama		
[1]) IG	3	3
[2]) IC	10	3
°) Osaka		
[1]) BK	2	10
[2]) BB	12	10
Kainan		
[1]) –	2	1W
Fukuchiyama		
[1]) –	3	30W
Maizuru		
[1]) –	1	50W
°) Hiroshima		
[1]) FK	3	10
[2]) FB	7	10
Miyoshi		
[1]) –	6	75W
[2]) –	1	75W
Kure		
[1]) –	11	10W
[2]) –	1	10W

Call	ch	kW/W
Onomichi		
[1]) DP	1	1
[2]) DD	7	1
Osaki		
[1]) –	3	3W
Okayama		
[1]) KK	5	10
[2]) KB	3	10
Tsuyama		
[1]) –	2	75W
[2]) –	12	75W
Nimi		
[1]) –	1	10W
[2]) –	4	10W
Takahashi		
[1]) –	2	3W
[2]) –	12	3W
Kasaoka		
[1]) –	2	0.1
[2]) –	4	0.1
Matsue		
[1]) TK	6	1
[2]) TB	12	1
Hamada		
[1]) –	2	0.5
[2]) –	9	0.0
Tottori		
[1]) LG	3	1
[2]) LC	4	1
Chizu		
[1]) –	6	50mW
[2]) –	12	50mW
Yamaguchi		
[1]) UG	9	1
[2]) UC	1	1
Hagi		
[1]) –	3	100W
[2]) –	6	100W
Iwakuni		
[1]) –	9	10W
[2]) –	1	10W
°) Matsuyama		
[1]) ZK	6	5
[2]) ZB	2	5
Uwajima		
[1]) –	6	75W
[2]) –	1	75W
Nihama		
[1]) ZQ	2	0.25
Yawatahama		
[1]) –	8	0.25
[2]) –	2	0.25
Kochi		
[1]) RK	4	1
[2]) RB	6	1
Nakamura		
[1]) –	1	0.25
[2]) –	11	250W
Suzaki		
[1]) –	2	20W
[2]) –	12	20W
Sagawa		
[1]) –	1	3W
[2]) –	11	3W

Call	ch	kW/W
Tokushima		
[1]) XK	3	1
Ikeda		
[1]) –	6	2W
Hiwasa		
[1]) –	9	100W
[1]) –	8	50mW
°) Kumamoto		
[1]) GK	9	1
[2]) GB	2	1
Minamata		
[1]) –	4	0.5
[2]) –	1	0.5
Ushibuka		
[1]) –	9	3W
[2]) –	2	3W
Hitoyoshi		
[1]) –	3	75W
[2]) –	1	75W
Fukuoka		
[1]) LK	3	10
[2]) LB	6	10
Kitakyushu		
[1]) SK	6	1
[2]) SB	12	1
Nagasaki		
[1]) AG	3	1
Saseho		
[1]) AT	8	1
Hirato		
[1]) –	3	10W
Izuhara		
[1]) –	5	0.3
Kagoshima		
[1]) HG	3	5
[2]) HC	5	5
Naze		
[1])	3	0.25
Kanoya		
[1]) –	4	75W
[2]) –	2	75W
Makurazaki		
[1]) –	4	100W
[2]) –	9	100W
Miyazaki		
[1]) MG	8	1
Nobeoka		
[1]) –	4	0.25
Oita		
[1]) IP	3	3
[2]) ID	12	3
Saeki		
[1]) –	7	30W
[2]) –	1	30W
Hida		
[1]) –	5	10W
Tsykumi		
[1]) –	6	3W
[2]) –	2	3W
Takedo		
[1]) –	8	3W
[2]) –	1	3W
Koratsu		
[1]) –	50	10W
[2]) –	47	10W

D.Prgr: Gen: 21.00–14.55(Sat 14.57) – Educ: Mo–Fri: 00.00–02.55, 04.00–05.20, 06.30–07.30, 09.15–14.50. Sat: 00.00–02.55, 04.00–05.00, 09.00–14.50. Sun: 00.00–05.00, 09.00–14.50 (Classified by broadc. h's (%): Gen-TV: N: 22.2, Educ. 9.2, Cultural 37.9, Entertainm. 25.0, Sports 5.7; Educ-TV: N. 0.7, Educ. 78.6, Cultural 20.7.
COLOR TV broadc. are tr. under NTSC system in the Tokyo and Osaka areas since Sept. 1960. At present color broadc. is conducted by 18 st's incl. those of Tokyo and Osaka.
F.Pl: The second 6-year plan (started in 1962) aims to increase the number of General TV net. st's to 461 and Educ. TV to the same daily average of 18 h's with that of the General TV.

PRIVATE STATIONS: Call JO-TV chJ. *=Color TV. 525 lines.
D.Prgr: General (approx.) W: 23.00–24.00 or from 02.00–05.00, 08.00–15.00. Sun. approx. 23.00 or 00.00–15.00.

Call	ch	kW(ERP)	Name
HR	1	10	Hokkaido Broadc. Corpo, Sapporo
FX	1	10	Tokai Television Broadc. Co, Nagoya
IR	1	10	Tohoku Broadc. Co, Sendai
LR	1	3	Kita-Nihon Broadc. Co, Toyama

Call	ch	kW(ERP)	Name
IF	1	10	Kyushu Asahi Broadc. Co, Fukuoka
CF	1	5	R. Minami-Nihon Broadc. Co, Kagoshima
GR	1	5	R. Aomori Broadc. Co, Aomori
JX	1	1	Nihon-Kai Telecasting Co, Tottori
FR	4	10	RKB Mainichi Broadc. Co, Fukuoka
OR	4	100/25	MBS Mainichi Broadc. System, Osaka
[1]) AX*	4	50	Nippon TV-Network Co, Niban-cho, Tokyo
ER	4	10	R. Chugoku Co, Hiroshima: 22.40–07.00
AR	5	10	Chubu-Nippon Broadc. Co, Nagoya
DR	5	5	Broadc. System of Niigata, Niigata
KX	5	10	Sapporo TV Broadc. Co, Sapporo
JF	5	3	Yamanashi Broadc. System Inc, Yamanashi
GF	5	3	R. Oita Broadc, Co, Oita
UR	5	1	Nagasaki Broadc Co, Nagasaki
DF	6	3	Iwate Broadc. Co, Morioka
[2]) KR*	6	50/12.5	Tokyo Broadc. System: 21.15–15.00
[3]) NR*	6	10	Asahi Broadc. Corp: W 21.15–16,15, Sun
MR	6	3	Hokuriku Broadc. Co, Kanazawa
DX	8	10	Kansai Telecasting Co, Osaka
[4]) CX	8	50	Fuji Telecasting Co: 21.00–13.00
ZR	8	1	Radio Kochi Broadc. Co, Kochi
KF	9	10	Nishi-Nippon Broadc. Co, Takamatsu
AF	10	5	Nankai Broadc. Co, Matsuyama
EF	10	3	Yamagata Broadc. Co, Yamagata
IX*	10	10	Yomiuri TV Broadc. Corp, Osaka
EX	10	50	Nippon Educational TV Co, Tokyo
YR	11	10	Sanyo Broadc. Co, Okayama
TR	11	5	Akita Broadc. System, Akita
PR	11	3	Fukui Broadc. Co, Fukui
SR	11	1	Shinetsu Broadc. Co, Nagano
NF	10	1	Miyazaki Broadc. Co, Miyazaki
PF	11	1	Yamaguchi Broadc. Co, Tokuyama
[5]) VR	11	1	Shizuoka Broadc. System
JR	1	1	Shikoku Broadc. Corp, Tokushima
BF	11	1	Kumamoto Broadc. Corp, Kumamoto
PX	11	3	Fukushima Television Broadc. Co, Fukushima
LX	11	10	Nagoya Broadc. Co, Nagoya
HX	10	1	Television Nishi-Nippon Corp, Yawata
HF	10	1	San-In Broadc. System, Yonago
KSDW	10	5	Okinawa Television, Naha
KSAR	12	3	Ryukyus Broadc. Corp, Naha Okinawa
NX	12	10	Hiroshima Television, Hiroshima

[1]) Color TV 20 h weekly – [2]) 36 Hitotsugicho, Akasaka, Minato-Ku, Tokyo. **L.P:** Chairman: T. Adachi. Pres: K. Shikakura. Color TV 14 h weekly – [3]) Asahi Broadcasting Corpo TV Station, Dojima, Kitaku, Osaka. **Cable:** Jonrtv. **Te:** 361-1191. **L.P:** See Sound Broadcasting. Color TV – [4]) Chiyoda-ku, Tokyo. **L.P:** Dir. Gen: N. Shikanai. Dir. Tec: E. Nishiyama – [5]) 46 Koyamachi, Shizuoka City. **L.P:** Dir. Gen: Masumitsu, Oishi. Dir. Tec: F. Yoshida. ChA6 9.3kW H Hamamatsu, chA5 0.2kW V Shimada, chA6 0.1kW H Yoshuvara. Projected stations: UHF st's in Higashiizu, Shimoda, Mirakubo.

AKG, Austria: Nippon Kyoiku TV, Yomiuri TV Broadc. Co: studio equip. (recorders, microphones).

Ampex Videotape, USA: Kyushu Asahi Hoso RKB Mainichi. Chubu Nippon TV (Nagoya), NBN (Nagoya), Tokai TV (Nagoya), Asahi Hoso (Osaka), Kansai TV (Osaka), Mainichi Hoso (Osaka), NHK (Osaka), Yomiuri TV (Osaka), Tohoku Hoso (Sendai), Shizuoka Hoso (Shizuoka), Fuji TV (Tokyo), HBC (Tokyo), Kyoiku TV (Tokyo), NHK (Tokyo), Nippon TV (Tokyo), Tokyo Hoso (Tokyo).

Nippon Electric Comp. Ltd, Japan: TV tr's and equip: NHK: **10kW:** Okayama (2), Hiroshima (2), Nagoya, **5 kW:** Sendai, Kagoshima (2), Aomori (2), Akita, **3 kW:** Morioka (2), Fukushima (2), Fukui (2), **1 kW:** Kokura (2), Shizuoka (2), Muroran (2), Asahikawa (2), Nagasaki, Tottori (2), Tokushima, Hofu (2), Matsue (2), Hamamatsu (2), Kushiro (2), Tsuruoka (2), **VHF:** Takayama 30 Watt (2), Rebroadcast Chain System, **UHF:** Otsu 30 Watt. Rebroadcast Chain System

Commercial Broadc. Comp: TV-tr's, Ant, studio-equip: **50 kW:** Fuji TV Co, Nippon Kyoiku TV, **10 kW:** Sendai Broadc. Co. (parallel operation with 2×5kW), Chubu-Nippon Broadc. Co. (incl. 5 Watt Basic Rep.) Tokai TV Broadc. Co, Mainichi Broadc. Co, Asahi Broadc. Co – **5 kW:** Akita Broadc. Co, R. Niigata Co, Nankai Broadc. Co, **3kW:** Yamagata Broadc. Co. (excl. Ant), Kita-Nippon Broadc. Co. (excl Ant), Fukui Broadc. Co. (excl. Ant), Hokuriku Broadc. Co, R. Oita, **1 kW:** Hokkaido Broadc. Co, Fukushima TV Co, Shizuoka Broadc. Co. (2), Hiroshima TV Broadc. Co, Nagasaki Broadc. Co. (2), TV-Nishi Nippon Co, R. Kochi Co, Yamaguchi Broadc. Co. **Studio equip:** Shinetsu Broadc. Co. (incl. 5 Watt Basic Repeater), Nipponkai TV Co, Iwate Broadc. Co, Hokkaido Broadc. Co. (incl. 5 Watt Basic Repeater), Akita Broadc. Co. (incl. 5 Watt Basic Repeater), Hokuriku Broadc. Co. (incl. 5 Watt Basic Repeater (2)).

Pye T.V.T, GB: Studio equip.

KOREA (Rep. of)

KOREAN BROADCASTING SYSTEM (Go.)

Addr. & L.P: See Sound Broadc – **Station:** Seoul HLCK chA9 12/6kW H – **D.Prgr:** 10.00–14.00.

AMERICAN FORCES KOREA NETWORK (US Go-Funds)

Addr: APO 301, S. Francisco, Cal. USA. **Te:** Yongsan 2495 – **L.P:** Dir. Gen: Lt. Col. W. G. Newkirk, Commander AFKN. Dir. Tec: T. J. Daugherty. Dir. For. Rel: Inf. Officer 8th US Army, APO 301, S. Francisco – **Stations:** Seoul chA3 500W H – Pajuri chA12 500W H – Osan chA12 150W H – Uijongbu chA12 50W H – Tongduchon chA3 50W H – Camp Kaiser chA12 100W H.
D.Prgr: Mo–Fri: 08.00(Sat 01.30, Sun 00.00)–16.00. **Testtr:** Mo–Fri 07.30, Sat 00.00, Sun 00.40 – **F.Pl:** Hwaaksan chA3 500W H.

KUWAIT

TELEVISION OF KUWAIT (Go.)

Addr: Ministry of Guidance and Inf, P.O. Box 621, Kuwait. **Cable:** Alirshad. **Te:** 39411 – **L.P:** See Sound broadc – **Stations:** Dasman ch8 (Retma) 0.25kW H – Mutlaa ch E8 (14.2kW to Kuwait Town, 31.6kW to No. 29.8kW to So) – **D.Prgr:** 16.00–20.00. **Test-tr's:** 12.00–14.00, 15.30–16.00 **Projected St's:** Mutlaa ch E10, Roudatein ch 8 (Retma). **The Marconi Company Ltd, G.B,** delivered 3 OBV.

LEBANON

COMPAGNIE LIBANAISE DE TELEVISION (Comm – a Time-Life Broadc. Associate)

– **Fi:** By adv. 25% of the tr.-time – **Addr:** B.P. 4848, Beirut – **L.P:** Pres, Dir. Gen: S. Nofal. Dir. Tec: N. Loutfi – **Stations:** 5kW H: chE7 Arabic, chE9 French, English – **Tripoli** (No. Lebanon) 1.2kW V: chE2 (Arabic) – **Masser el Chouf** 60kW H: chE4 (International).
D.Prgr: chE7 16.00–20.00, chE9 17.00–21.30.
The Marconi Company Ltd, GB: delivered 1×1kW, 1×5kW tr's (Beirut), ant, studio-equip, 1OBV.
Pye T.V.T, GB: OBV.

TELE ORIENT (Comm.) Compagnie de Télévision du Liban et du Proche – Orient (SAL)

– **FI:** By adv – **Addr:** Box 5054, Beirut. **Te:** 280001. **Cable:** Telibor – **L.P:** Dir. Gen: R. Kerns. Mgr: L. Dahdah – **Station:** chE11 100/20kW H. Arabic, French, English – **D.Prgr:** 16.00–22.00.

MALAYA (Federation)

TELEVISION MALAYA (Go.)

The target date for completion of the first TV st. in Kuala Lumpur has been set at December 1963. The western European 625 line standard will be adopted. Malayan Television hopes to start initially with a 10kW (E.R.P.) temporary Sce. on Malayan ch10 in band 3. High power tr's of 100kW (E.R.P.) will be commissioned in mid 1964. This will carry dual channel transmissions in 4 languages.
Fi: Spot adv, Go, licenses – **Ad:** roughly estimated to from 11.30–15.30 – **Addr:** Dept. of Television, c/o Dewan Tunku Abdul Rahman, Ampang Rd, Kuala Lumpur. **Cable:** "TIVI Malaya". **Te:** 8 0352 – **L.P:** Dir: O. Kheng Law. Head Prgr's: R. I. Bin Raja Wahid. Eng. in charge: L. Kivong Khoon.
Stations: Pilot Sce: Kuala Lumpur chM10 (209–216Mc) 10/2kW H. **D.Prgr:** 11.30–15.30. Permanent Sce. (July 64). Kuala Lumpur chM5 (174–181Mc) & chM8 (195–202Mc) 100/20kW.
Pye T.V.T, GB: Tr, ant, studio equip.

PHILIPPINES

ASSOCIATED BROADC. CORPORATION-ABC (Comm.)

– **Addr:** Malugay St, Makati, Rizal, Manila – **L.P:** Dir. Gen: A. C. Capotosto. Dir. Tec: A. Paez – **Station:** DZTM-TV ch A5 – **D.Prgr:** Mo, Wed, Fri 09.25–13.30; Tues, Thurs 09.25–15.00; Sat 09.00–14.30; Sun 03.55–14.30.

BOLINAO ELECTRONICS CORP. (Comm.)

– **Addr:** ABS Bldg, Devey Blvd, Manila. **Te:** 8-46-84. **Cable:** Bolinap – **L.P:** Exec. Vice Pres: E. Lopez – **Stations:** DYCB-TV ch A3 2/1kW – DZAQ-TV ch A3 2/1kW – Davao City ch A7 0.5kW – **D.Prgr:** DYCB-TV: 08.00–14.00, DZAQ-TV: 07.00–16.00.

CHRONICLE BROADCASTING NETWORK (Comm.)

– **Addr:** P.O. Box 1593, Manila. **Cable:** CBN. **Te:** 300-61 – **L.P:** Pres. & Gen. Mgr: E. Lopez Jr – **Station:** DZXL-TV ch A9 0.2/0.18kW – **D.Prgr:** 02.00–14.00.

INTER-ISLAND BROADCASTING CORP. (Comm.)

– **Addr:** Trinity Bldg, San Luis Str, Manila – **Stations:** DZTV ch 13 25/5kW, DXTV (Davao City) ch A13 0.5kW – **D.Prgr:** 07.00–15.00.

METROPOLITAN BROADCASTING CO. (Comm.)

– **Addr:** 964 Taft Ave, Manila – **Station:** DZRH-TV ch All 24/49kW H – **D.Prgr:** 08.00–15.00 – **F.PL:** Davao ch 11A 3.5/7kW in 1964.

PHILIPPINE BROADC. SERVICE (Go. with comm. prgr's)

– **Addr. & L.P:** See Sound Broadc – **Station:** DZRP-TV ch A10 H 1.5/1.2kW – **D.Prgr:** 09.00–14.00.

REPUBLIC BROADC. SYSTEM (Comm.)

– **Addr:** E de los Santos Ave, Diliman, Quezon City. **Te:** 70-02-21. **Cable:** "Bobstew" – **L.P:** Dir. Gen: R. L. Stewart. Dir. Tec: M. Samia – **Station:** DZBB-TV ch

A7 5/2.5kW – **D.Prgr:** Mo-Fri 07.30–15.00, Sat 00.00–14.00, Sun 00.00–15.30.
Projected st's: Chronicle Broadc. Network: Bacolod City ch A2 0.5kW, Baguio City ch A2 0.5kW, Cebu City ch A3 2kW, Cagayan de Oro ch A3 2kW, Davao City ch A9 2kW – **Manila Times Publications, Inc:** Davao City ch A3 10kW, Cebu City ch A13 10kW – **Visayan Broadc. Network:** Cebu City ch A7 0.5kW, Bacolod City ch A9 0.5kW. **Ampex Videotape (TM Ampex),** USA: Chronicle Broadc. Netw, Republic Broadc. System – **Pye T.V.T, GB:** Studio equip (Rep. Broadc. System).

RYUKYU ISLANDS

OKINAWA TELEVISION BROADC. LTD. (Comm) – **Addr:** 1-chrome, Matsuyama-cho, Naha, Okinawa – **L.P:** Pres: T. Guschi-chan – **Station:** KSDW-TV chA10 5/2kW – **D.Prgr:** 03.00–15.00
RYUKYUS BROADCASTING CORPORATION – **Addr:** CPO Box 4, Naha, Okinawa – **L.P:** See Sound Broadcasting – **Station:** KSAR-TV chA12 5/1.75kW – **D.Prgr:** 03.00–15.00 in Japanese.
Nippon Electric Co, Japan, delivered 5kW tr's, studio equip.

SAUDI ARABIA

ARAMCO-TV (Non-comm. Private Comp) – **Fi:** Arabian American Oil Co – **Addr:** ARAMCO, Box 1359, Dhahran. **Te:** 3061 – **L.P:** Producer: J. V. Fullerton. Asst. Producer: Saleh Al-Mozaini – **Station:** chA2 6/3.15kW – **D.Prgr:** Sat/Sun/Mo/Tues: 4 hrs. Wed, Fri: 5 hrs. Thurs: 6½ hrs. (Arabic TV sound only, English sound via Radio) – Times based on Sun Time.

SINGAPORE (Federation of Malaysia)

TELEVISION SINGAPURA (Go.)
Addr. & L.P: See Sound Broadc.
Stations: Bukit Batok: ch E5 (Singapore I), ch E8 (Singapore II) 16kW H – **D.Prgr:** 11.00–16.00. **Testtr's:** 02.30–04.30, 06.30–09.30.
F.PL: Two additional st's in band IV (1964/65).
Ampex Videotape (TM Ampex), USA.
The Marconi Company Ltd, G.B, delivered TV tr's 1×1, 1×4kW, ant, studio equip.
Nippon Electric Co. Ltd, Japan delivered studio equip.

SYRIA

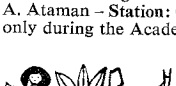
SYRIAN TELEVISION COMPANY (Go) – **Addr. & L.P:** See Sound Broadcasting – **Stations:** Damascus chE5 11kW, Homs chE7 2kW, Sheikh Dahor chE9 2kW, Aleppo chE5 2kW, Tartous chE11 2kW – **D.Prgr:** 16.00–22.00.

THAILAND

THAI TELEVISION CO. LTD. (Comm.) – **FI:** By adv. **Addr:** Rajdamnern Ave. Bangkok. **Cable:** Thaitevi. **Te:** 22273 – **L.P:** Mgr: P. Hongsanan. Dir. Tec: A. Pochanabhisut. Dir. For. Rel: Chamnong Rangsikul – **Station:** Ch A4 29/14.5kW H – **D.Prgr:** 10.00–16.30, Sun also 04.00–09.00. **Exp. st's:** ch A5 Konkhan Prov (No. East), ch A8 Lampang Prov (No.), ch A9 Hadyai, Songkhla Prov (So.).
THE ARMY TELEVISION STATION (Comm.) – **FI:** By state and adv – **Addr:** Phaholyothin Rd. Bangkok. **Te:** 70428 – **Station:** A7 5/2.5kW H – **D.Prgr:** Mo-Fri 04.45–06.00, 10.15–16.00. Sat/Sun 02.00–05.00, 10.00–16.00 – **Pye T.V.T. GB:** Tr. ant, studio equip, OBV.

TURKEY

ISTANBUL TEKNIK ÜNIVERSITESI (Go. exp.)
FI: By the Technical University – **Addr:** Elektrik Fakültesi, Yüksek Frekans Teknigi Kürsüsü, Istanbul. **Te:** 482250 – **L.P:** Prof. Dr. A. Ataman – **Station:** Ch E4 50 Watts, H – **D.Prgr:** Thurs 15.00–17.00 only during the Academic Year.



AUSTRALIA (Commonwealth of)

Standards: Def. 625 – Picture freq: 25 – Ch width: 7Mc FM.
AUSTRALIAN BROADCASTING COMMISSION (ABC)
National Television is controlled by the Australian Broadcasting Commission, which is responsible to the Postmaster-General, whose department controls the transmitters – **Addr.** and **L.P:** See Sound.
Stations: One each in Sydney (ABN), Melbourne (ABV), Brisbane (ABQ), Adelaide (ABS), Perth (ABW), and Hobart (ABT), Canberra (ABC). Operate on Australian ch2 on 63–70Mc 100/20kW exc. ABC Canberra ch3. Po: H, exc. Canberra V – ABHN Newcastle ch5, H – ABEV Bendigo ch1, V – ABRV Ballarat ch3, H – ABNT Launceston ch3, H – ABDQ Toowoomba ch3, H – ABWN Wollongong ch5, H – ABCN Orange ch1, V – ABLV Latrobe Valley ch4, H – ABGV Goulburn Valley ch3, V – **D.Prgr's:** Mo–Fri: 01.30–01.50, 04.00–04.50, 06.45–13.00, Sat 03.30–13.00, Sun: 01.00–02.15(fortnightly church service), 03.00(Sun 05.00)–12.50 – **Projected stations:** ABRQ Rockhampton ch3, H (Dec. 63), ABRN Richmond Tweed ch6, H (April 64), ABTQ Townsville ch3, H (June 64).
Ampex Videotape (TM Ampex), USA: ABS, NWS-9 (Adelaide) – ABQ-2, QTQ-9 (Brisbane) – ABT-2, Tasmanian TV (Hobart) – ABV-2, GTV-9 (Melbourne) – ABC-3, ABW-2 (Perth) – ABN-2, ATN-7, TCN-9 (Sydney) – **The Marconi Company, Ltd, GB: (ABC): TV tr's:** Adelaide 2×10, 2×2kW, Bendigo 2×10, 2×2kW, Brisbane 2×10, 2×2kW, Central Tablelands 2×10, 2×2kW, Perth 2×10, 2×2kW, Richmond Tweed 2×5, 2×1kW, Sydney 1×18, 2×5kW – **Antennas:** Adelaide, Brisbane, Perth – Studio equipment: Bendigo, Central Tablelands, Richmond Tweed – **OBV:** Hobart – **Brisbane BTQ:** TV tr's: 1×4, 1×1kW, Ant, OBV – **Brisbane ABQ:** OBV – **Melbourne HSV:** TV tr's: 1×18, 2×5, 1×4, 1×2½kW, 1 Amplifier, OBV – **Sydney ATN:** TV tr: 1×2kW, 1 Amplifier, OBV. **Pye T.V.T. GB:** ABC Studio equip, OBV.

PRIVATE STATIONS (Comm.)
Adv. accepted under conditions of Australian Broadc. Control Board. The first two letters are an abbreviation of the name of the licence, the third indicates the state and the numeral signifies the channel. All st's 100/20kW exc. TVT6 50/10 H.

1) NBN	3	Newcastle Broadc. & TV Corpo.	13) TNQ	7	Telecasters North Queensl. Ltd.
2) WIN	4	TV Wollongong	14) CBN	8	Country TV
3) TVT	6	Tasmanian TV Ltd.	15) RTN	8	Richmond-Tweed
4) BTV	6	Ballarat & Western Victoria T.	16) BCV	8	Bendigo & C. Victoria Telecast's
5) GMV	6	Goulburn Murray	17) TCN	9	Television Corpo.
6) ADS	7	TV Broadcasters	18) GTV	9	General TV Corpo.
7) TVW	7	TVW Ltd.	19) QTQ	9	Queensland TV
8) HSV	7	Herald Sun TV Ltd.	20) TNT	9	Northern TV Ltd.
9) ATN	7	Amalgamated TV	21) NWS	9	Southern TV Corpo.
10) BTQ	7	Brisbane TV Ltd.	22) GLV	10	Gippsland Latrobe Valley Telecast's
11) CTC	7	Canberra TV Ltd.			
12) RTQ	7	Rockhampton TV	23) DDQ	10	Darling Downs

1) P.O. Box 750, Newcastle – **L.P:** Gen. Mgr: C. J. Derwin – **D.Prgr:** Mo-Fri 04.55–12.05, Sat 06.55–12.30, Sun 06.25–12.05.
2) P.O. Box 500, Wollongong. **Te:** 2-6444. **Cable:** "Winteevee" – **L.P:** St. Mgr: W. Lean – **D.Prgr:** varying.
3) 52 New Town Rd, Hobart, Tasmania – **L.P:** Dir: E. C. McRae – **D.Prgr:** W 05.00–12.40 (Fri 13.10), Sat 19.30–12.30, Sun 04.00–12.40.
4) P.O. Box 464, Ballarat – **L.P:** Gen. Mgr: B. F. Jackson – **D.Prgr:** 07.00–12.45 – 5) Wyndham Str, Shepparton. **Te:** 9307. **Cable:** "Geemvee" Melbourne – **L.P:** Dir. Gen: S. J. A. Kemp – **D.Prgr:** 07.00–13.00.
6) 125 Strangways Terrace, No. Adelaide, So. Australia. **Te:** 6-8591. **Cable:** "Adseven" – **L.P:** Gen. Mgr: K. A. MacDonald – **D.Prgr:** 02.00–13.30, Sat 06.00–14.00.
7) Osborne Park Road, Tuart Hill, We. Australia. **Te:** 19-14-21. **Cable:** Teleview – **L.P:** Gen. Mgr: J. W. Cruthers – **D.Prgr:** W 02.10–13.30, Sun 05.00–12.30.
8) Dorcas & Wells Str, So. Melbourne – 9) Television Centre, Epping, NSW. **Te:** NL 0111. **Cable:** "Telecentre, Sydney" – **L.P:** Gen. Mgr: J. H. Oswin – **D.Prgr:** Mo-Fri 00.30–13.30, Sat 02.25–14.00.
10) 241 Adelaide Str, Brisbane – **L.P:** Gen. Mgr: R. R. Macartney.
11) P.O. Box 377, Camberra – **D.Prgr:** 07.30–12.00.
12) 174 Quay St, Rockhampton – **L.P:** Mgr: Max Keogh.
13) P.O. Box 716, Townsville, NQ – **L.P:** Man. Dir: J. F. Gleeson – **D.Prgr:** 07.30–12.00.
14) Box 465 P.O, Orange – **D.Prgr:** 07.30–12.30.
15) 11 Molesworth St, Lismore – **L.P:** Man. Dir: L. T. Warrick – **D.Prgr:** W 07.30–12.15(Sat 12.30), Sun 06.30–12.15.
16) P.O. Box 240, Bendigo – **L.P:** Gen. Mgr: F. A. McManus – **D.Prgr:** 07.30–12.15.
17) Artarmon Rd, Willoughby, Sydney. **Te:** 43-0444. **Cable:** "Diffusion" – **L.P:** Mgr: A. J. Baz – **D.Prgr:** Mo-Thurs 00.30–14.00, Fri 02.00–14.00, Sat 00.00–14.00, Sun 03.00–13.30.
18) Television City, 22-46 Bendigo Str, Richmond E 1, Victoria. **Te:** 42-4121. **Cable:** "Geetevee" – **L.P:** Mgr: Nigel Dick – **D.Prgr:** Mo-Fri 01.45–13.45, Sat 07.00–13.45, Sun 02.00–13.15 – 19) Box 72A GPO, Brisbane – **L.P:** Gen. Mgr: J. W. McKay – **D.Prgr:** 02.00–12.30.
20) P.O. Box 873, Launceston – **L.P:** Mgr: Dir. A. E. Evans – **D.Prgr:** 07.30–12.15 – 21) 202-208 Tynte St, No. Adelaide. **Cable:** "Newsnine". **L.P:** Gen. Mgr: W. L. C. Davies – **D.Prgr:** Mo-Fri 02.30–14.00, Sat 22.00–14.30, Sun 02.30–13.30.
22) P.O. Box 201, Traralgon – **L.P:** St. Mgr: N. Carlyon – **D.Prgr:** 07.00–13.00 – 23) P.O. Box 34, Toowoomba – **L.P:** Gen. Mgr: S. J. Fitzpatrick – **D.Prgr:** 07.30–12.15.
Projected St's: RVN2 Riverina Broadc. TV, Wagga (early 1964), NEN9 TV News England Ltd, Tamworth (Apr. 1964).
Additional comm. st's to be licensed in Sydney, Melbourne, Brisbane, Adelaide and Perth and other cities still to be heard. **Pye T.V.T. GB:** Tr, ant, studio equip. to TVT, TVW, NWS – tr, studio equip. to GTV.

HAWAII

All St's Comm – ch A – Po: Vertical.
HAWAIIAN BROADCASTING SYSTEM – **Addr:** P.O. Box 581, Honolulu – **L.P:** Gen. Mgr: J. Herold – **Stations:** Honolulu KGMB-TV ch A3/A9 108/60kW – **Satellites:** Wailuku, Maui KMAU-TV ch A3 6/3kW. Hilo KHBC-TV ch 9 1/0.5kW. Lihue, Kanuai ch 70 UHF. Kalaheo, Kauai K82AM ch82UHF (Systems: CBS & KGMB).
D.Prgr: 16.30(Sun 16.45)–10.00 in E, J, F.

KAISER HAWAIIN VILLAGE TELEVISION – **Addr:** 1290 Ala Moana Blvd, Honolulu. **Te:** 53-991 – **L.P:** Gen. Mgr: R. C. Block – **Station:** Honolulu KHVH-TV ch 4 (color) 26.3/13.2kW – **Satellites:** Hilo KHJK-TV ch 13 2/1kW, Wailuku, Maui KMVI-TV ch 12 30/15 kW. Honohina K76BB ch 76 UHF. Lihue. Kauai K74BC ch74UHF. Kulani K70BS ch70UHF, Naalehu K74BA ch74UHF.

RADIO HONOLULU – **Addr:** 1170 Auahi St, Honolulu. **Cable:** Radhon 140HU. **Te:** 62-366 – **L.P:** Gen. Mgr: J. D. Keating – **Station:** Honolulu KONA-TV ch 2 (color) 60/30kW – **Satellites:** Wailuku, Maui KALA-TV ch 7, Lihue, Kauai K78AR ch78UHF. Hilo, Hawaii KALU-TV ch 11 (Systems: KONA) – **D.Prgr:** 18.25–10.00 in E, J, F.

HAWAIIAN PARADISE CORP – **Addr:** 2227A Kalakua Ave, Honolulu 15. **Te:** 933-823 – **L.P:** Gen. Mgr: R. A. Greer Jr – **Station:** ch13 30.7/15.4kW – **D.Prgr:** W 02.20(Sat 01.30)–09.00.

MARIANAS ISLANDS

KUAM TELEVISION (Comm.): **Addr:** P.O. Box 368, Agana. **Cable:** KUAM – **L.P:** Pres: H. M. Engel Jr. Mgr: L. K. Radner. **Station:** ch A8, A10 0.43/0.22kW V – **D.Prgr:** 07.30–14.00 (Sat 23.00–14.00).

NEW ZEALAND

NEW ZEALAND BROADCASTING CORP. (Statutory Public Body) – **FI:** By license payments and adv. revenue Tues, Wed, Thurs, Sat – **Addr:** P.O. Box 98, Wellington. **Cable:** Broadserv. **Te:** 70999 – **L.P:** See Sound Broadcasting – **Stations:** Def: 625, Auckland ch2 55.25/60.75Mc 10/2kW H – Wellington ch1 45.25/50.75Mc 10/2kW H – Christchurch ch3 62.25/67.75Mc 10/2kW H – Dunedin ch2 55.25/60.75Mc 0.50/0.25kW H.

D.Prgr: W 06.00–11.00. Sun 05.30–10.30. **Testtr:** W 22.00–03.00 – **F.Pl:** 100kW tr's at Auckland, Christchurch, and 100kW repeater st's at Waikato, Manawatu.

Ampex Videotape (TM Ampex), USA: Dunedin, Lyttleton, Wellington. **The Marconi Company, Ltd, GB: TV tr's:** Wellington 1×5, 1×1kW, Dunedin 1×5, 1×1kW – Christchurch 2×5, 2×1kW, 1×500, 1×250W, Lyttleton 50W – **Ant:** Christchurch – **Studio equip:** Wellington, Dunedin, Christchurch, Auckland, Lyttleton – **OBV:** Lyttleton(3). **Pye TVT, GB:** Studio equip.

SAMOA (American)

TELEVISION OF SAMOA (Go.)

Addr: Dept. of Education, Pago Pago – **L.P:** Mgr: B. L. Mac Kenzie. **Stations:** chA2, A4, A5 50kW V (to operate Feb. 64). **Satellites:** chA7, A9, A11 1kW H (June 64) – **Projected st's:** chA8, A10, A12 50kW V – chA3, A6, A13 1kW H.

NORTH AMERICA

BERMUDA

BERMUDA RADIO & TELEVISION CO, LTD. (Comm.)

FI: By adv – **Addr & L.P:** See Sound Broadc.

Station: ZBM-TV chA10 4/1.25kW H – **D.Prgr:** 20.30–03.00.

CANADA

CANADIAN BROADCASTING CORP. (Publicly owned)

Abbreviations: See Sound Broadcasting – **Addr: Nfld. R:** CBYT, Box, Corner Brook – **Quebec R:** CBFT, CBMT, 1425 Dorchester Str. West, Montreal – **Maritime R:** CBHT, 70 Bell Road, Halifax, N.S, CBAFT, 232 St. George Str, Moncton, N.B – **Prairie R:** CBWT, CBWFT, 541 Portage Ave, Winnipeg, M, CBXT, P.O. Box 555, Edmonton – **B. C. R:** CBUT, 701 Hornby Str, Vancouver – **Ontario: Division:** English Networks HDQ, CBLT, 354 Jarvis Str, Toronto. CBOT, CBOFT, P.O. Box 3220, Station "C" Ottawa. CFSN, P.O. Box 190, Stephenville. **Ottawa Area:** CFLA, Goose Bay, Lab.

L.P: See Sound Broadc – **Nfld. R:** CBYT: Dir: W. F. Galgay. Mgr: C. V. Hierlihy – **Quebec R:** CBFT, CBMT: Dir: G. Lamarche. Prgr. Dir: R. Rolland (CBFT, French), K. F. Davey (CBMT). Dir. of TV-Technical Sce's: C. Frenette – **Maritime R:** CBHT: Dir: S. R. Kennedy. Prgr. Dir: K. R. Barry – **Prairie R:** CBWT: Dir: J. R. Finlay. Prgr. Dir: D. E. Cameron. Dir. Tec: H. Haywood. CBWFT: Dir. Prgr: L. Remillard. CBXT: Edmonton St. Mgr: R. Horley – **B.C. R:** CBUT: Dir: A. K. Morrow. Dir. TV operations: G. W. R. Graham. Dir. Prgr: J. D. Nixon – **Ottawa Area:** CBOT-CBOGT: Dir: J. Dunn. Prgr. Dir: D. Townsend. Mgr. TV Op: G. Huard.

CBC stations: Po: V+E=English Net – F=French Net – Def. 525.

Station	Call	chA	kW(ERP)	Sce.	H of tr.
Montreal	CBFT	2	100/50	F	18.30–06.00
Vancouver	CBUT	2	47.6/25.4	E	20.30–09.00
Halifax	CBHT	3	56/34	E	14.15–04.27
Winnipeg	CBWT	3	57.8/34.7	E	19.00–07.00
Ottawa	CBOT	4	50.1/26.7	E	17.15–06.00
Corner Brook	CBYT	5	019/0.09	E	16.30–04.30
Edmonton	CBXT	5	318/159	E	20.00–08.00
Montreal	CBMT	6	100/50	E	19.30–06.00
Toronto	CBLT	6	99.5/53.5	E	17.00–06.08
Winnipeg	CBWFT	6	2.87/1.72	F	19.45–06.00
Stephenville	CFSN-TV	8	0.294/0.147	E	18.00–04.20
Goose Bay	CFLA-TV	8	0.348/0.174	E	18.30–04.30
Ottawa	CBOFT	9	31/17	F	18.15–05.30
Moncton	CBAFT	11	10.06/5.03	F	17.50–04.00

Network Rel. st's: CBFST1 (Sturgeon Falls, Ont.) ch7 9.75/5.527kW – CBWAT (Kenora, Ont.) ch8 9.3/5.5kW – CBWBT (Flin Flon, Man.) ch10 6.8/3.4kW – CBXAT (Grande Prairie, Alta.) ch10 36/18kW – CBUBT (Cranbrook, B.C.) ch10 1.1/0.505kW – CBUAT (Trail, B.C.) ch11 187/124kW – **Rebroadc. st's:** CBHT1 (Liverpool, N.S.) ch12 0.412/0.248kW – CHBT2 (Shelburne, N.S.) ch8 0.423/0.254kW – CHBT3 (Yarmouth, N.S.) ch11 0.412/0.248kW – CBFT1 (Mont Tremblant, Que.) ch11 0.6/0.3kW – CBFT2 (Mont Laurier, Que.) ch3 5.54/2.80kW – CBFST1 (Sudbury, Ont.) ch13 0.601/0.361kW – CBFST2 (Temiscaming, Que.) ch12 7.08/3.54kW – CBWAT1 (Dryden, Ont.) ch9 8.9/4.45kW – CBWAT2 (Sioux Lookout, Ont.) ch12 5W/0.01kW – CBWBT1 (The Pas, Man.) ch7 0.26/0.13kW – CBXAT1 (Peace River, Alta.) ch7 0.72/0.36kW – CBUAT1 (Nelson, B.C.) ch9 0.56/0.362kW – CBUAT2 (Castlegar, B.C.) ch3 5W – CBUT1 (Courtenay, B.C.) ch9 0.625/0.332kW.

The microwave network extends from St. John's, Nfld, to Victoria.

D.Prgr: Approx. 20.00–22.00, 05.00–07.00.

F.Pl: New st. at Quebec ch11 173/87kW F (Sept. 64).

Winnipeg, ch6 100/50kW E (Oct. 64), ch3 59/35.2kW F (Oct. 64).

Ampex Videotape (TM Ampex), USA delivered to: CBC (Calgary, Edmonton, Halifax, Montreal, Ottawa, Toronto, Vancouver, Winnipeg) – CFCN-TV, CHCT-TV, CJPM-TV, CFRN-TV, CBHT-TV, CJCH-TV, CHCH-TV, CKRS, Cent. Ont. TV, CFCF-TV, CFTM-TV, CJOH-TV, CFCM-TV, CKMI-TV, TV Quebec, CKCK-TV, CKRN-TV, CHSJ-TV, CKSO-TV, CTV Network, GFTO, CHAN-TV, CKLW-TV, CJAY-TV, York TV, CKOS-TV.

The Marconi Company, Ltd, GB: TV tr's: Fox River 1×3W, 1 Amplifier 50W, Montreal CFTM 2×4kW, 2×1kW, Montreal CFCF 2×4, 2×1kW, Amplifiers 2×18kW, 2×10kW, Ottawa 1×4, 2×5kW, Amplifier 18kW, Ottawa CBC 5kW, Vancouver 5kW – **Ant:** Montreal – **Studio equip:** Montreal, Montreal CFTM, Montreal CFCF, Ottawa CBC, Vancouver CBC – **OBV:** Vancouver CBC.

Pye TVT, GB: Studio equip, OBV.

PRIVATE STATIONS (Comm.)

FI: By adv – *indicates transmitter video power, instead of ERP. 32 stations less 5kW Video not mentioned.

Call	ch A	kW	Location
CFCR-TV-10	2	5*	Clearwater, B.C.
CHCT-TV	2	100/50	Calgary, Alta.
CJFB-TV-2	2	5*	Eastend, Sask.
CJFB-TV-2	2	5*	Val. Marie, Sask.
CJIC-TV	2	28/15	Sault Ste. Marie, Ont.
CKBI-TV-4	2	5*	Nipawin, Sask.
CKCK-TV	2	100/53.5	Regina, Sask.
CKCW-TV	2	25/15	Moncton, N.B.
CKPR-TV	2	55.4/30.2	Port Arthur, Ont.
CKSA-TV	2	75/37.5	Lloydminster, Alta.
CFQC-TV-1	3	6.8/3.6	Stranraer, Sask.
CFRN-TV	3	180.3/90.43	Edmonton, Alta.
CJBR-TV	3	49.3/28	Rimouski, Que.
CJTK-TV-1	3	5*	Temiscaming, P.Q.
CKOS-TV	3	5/2.5	Yorkton, Sask.
CKVR-TV	3	100/50	Barrie, Ont.
CFCM-TV	4	100/50	Quebec, Que.
CFCN-TV	4	55/27.5	Calgary, Alta.
CHAB-TV	4	48/25	Moose Jaw, Sask.
CHSJ-TV	4	100/50	Saint John, N.B.
CJCB-TV	4	100/60	Sydney, N.S.
CJCN-TV	4	8.6/.43	Grand Falls, Nfld.
CKRN-TV	4	115/57.5	Rouyn, Que.
CFCR-TV-6	5	5*	Mount Timothy, B.C.
CFCR-TV-9	5	5*	Boston Bar, B.C.
CFEN-TV-1	5	5*	Enderby, B.C.
CHAU-TV	5	52.5/26.25	Carleton, Que.
CHBC-TV-4	5	5*	Salmon Arm, B.C.
CHID-TV-4	5	5*	Lumby, B.C.
CHKC-TV-1	5	5*	Keremeos, B.C.
CHMS-TV-1	5	5*	Crescent Valley, B.C.
CHOV-TV	5	19.1/9.5	Pembroke, Ont.
CHPT-TV-1	5	5*	Peachland, B.C.
CJCH-TV	5	52.8/26.4	Halifax, N.S.
CJDC-TV	5	5/2.5	Dawson Creek, B.C.
CJFB-TV	5	13.3/6.65	Swift Current, Sask.
CKBI-TV	5	61/36.5	Prince Albert, Sask.
CKMI-TV	5	13.85/6.77	Quebec, Que.
CKSO-TV	5	30/16	Sudbury, Ont.
CKX-TV	5	54/27	Brandon, Man.
CFCL-TV	6	100/50	Timmins, Ont.
CFGW-TV-1	6	5*	Gaspe West, P.Q.

Call	ch A	kW	Location
CHAT-TV	6	5.7/3	Medicine Hat, Alta.
CHCA-TV	6	13.2/6.6	Red Deer, Alta.
CHEK-TV	6	100/50	Victoria, B.C.
CHSJ-TV-1	6	54.7/27.3	Bon Accord, N.B.
CJCB-TV-1	6	100/60	Inverness, N.S.
CJCH-TV-2	6	5*	Bayview, N.S.
CJON-TV	6	62/33	St. John's, Nfld.
CJPM-TV	6	61/36.5	Chicoutimi, P.Q.
CKCK-TV-2	6	9/4.5	Willow Bunch, Sask.
CFCR-TV-11	7	5*	Quesnel, B.C.
CHAR-TV-1	7	5*	Squamish, B.C.
CHLT-TV	7	170/100	Sherbrooke, Que.
CJAY-TV	7	325/180	Winnipeg, Man.
CJLH-TV	7	96.1/44.9	Lethbridge, Alta.
CKAM-TV-1	7	5*	Newcastle, N.B.
CKOS-TV-2	7	5/2.5	Carlyle Lake, Sask.
CKRN-TV-1	7	5*	Senneterre, Que.
CKRT-TV	7	39/19.5	Rivière du Loup, P.Q.
CFCN-TV-1	8	5*	Drumheller, Alta.
CFCN-TV-2	8	5*	Banff, Alta.
CFCR-TV-5	8	5*	Williams Lake, B.C.
CFCR-TV-7	8	5*	Savona, B.C.
CFQC-TV	8	180/100	Saskatoon, Sask.
CHAN-TV	8	164/81	Burnaby, B.C.
CJCH-TV-3	8	5*	Amherst, N.S.
CJSS-TV	8	130/78	Cornwall, Ont.
CKNX-TV	8	90/55	Wingham, Ont.
CKOS-TV-1	8	23/11.5	Baldy Mountain, Man.
CFCR-TV-4	9	5*	Clinton, B.C.
CFRN-TV-1	9	5*	Carrot Creek, Alta.
CFTO-TV	9	325/162	Toronto, Ont.
CFXU-TV	9	73/37	Antigonish, N.S.
CHRE-TV	9	140/75	Regina, Sask.
CKBL-TV	9	153/92	Matane, Que.
CKLW-TV	9	178/107	Windsor, Ont.
CKRS-TV-1	9	5*	Port Alfred, P.Q.
CFCH-TV	10	28.5/14.25	North Bay, Ont.
CFCR-TV-2	10	5*	Ashcroft, B.C.
CFCR-TV-3	10	5*	Merritt, B.C.
CFPL-TV	10	325/195	London, Ont.
CFTM-TV	10	325/160	Montreal, Que.
CHCA-TV-1	10	12.4/6.2	Coronation, Alta.
CHCA-TV-2	10	5/?	Banff, Alta.
CJCH-TV-1	10	9.05/4.53	Canning, N.S.
CFCR-TV-1	11	5*	Lillooet, B.C.
CFCR-TV-8	11	5*	Adams Hill, B.C.
CHCH-TV	11	230/143	Hamilton, Ont.
CKBL-TV-1	11	5*	Mont Climont, P.Q.
CKVR-TV-1	11	5*	Parry Sound, Ont.
CKWS-TV	11	130/78	Kingston, Ont.
CKX-TV-1	11	6.64/3.48	Foxwarren, Man.
CFCF-TV	12	325/160	Montreal, P.Q.
CFRN-TV-2	12	5*	Edson, Alta.
CHCT-TV-1	12	5*	Drumheller, Alta.
CHEX-TV	12	139/83.4	Peterborough, Ont.
CJWP-TV-1	12	5*	Waterton Park, Alta.
CKAM-TV	12	141/77	Upsalquitch Lake, N.B.
CKCK-TV-1	12	15.1/7.5	Colgate, Sask.
CKRS-TV	12	20/10	Jonquière, Ont.
CKRT-TV-1	12	5*	Baie St. Paul, P.Q.
CFCY-TV	13	38.6/9.3	Charlottetown, PEI
CJOH-TV	13	152/76	Ottawa, Ont.
CKCO-TV	13	325/160	Kitchener, Ont.
CKTM-TV	13	42.5/21.25	Three Rivers, Que.

Pye TVT, GB: Studio equip to CJCH–TV, Halifax.

UNITED STATES OF AMERICA

	Licensed		
	Authorized	Operating	Unlicensed**
TV commercial st's:	80	522(7*)	55
TV educational st's:	22	57(1*)	13

* Licensed only – ** Operations on Prgr. Test.
See Sound Broadcasting.

THE ARMED FORCES RADIO & TELEVISION SERVICE

A: Army. AF: Air Force. N: Navy. RCA: Royal Canadian Army.

AREAS: chA:	ch		Watt
Alaskan			
Adak	N	8	100
Ft. Greely	A	8	165
Galena	AF	8	100
Kodiak	N	8	100
Northeast Cape	AF	11	100
Wildwood	A	8	100
Shemya	AF	3	1
Stephenville	AF	8	300
Sondrestrom[7]	AF	8	100
Thule AFB[7]	AF	8	100
Keflavik[8]	N	8	250
E. Harmon AFB[4]	AF	8	100
Lajes Fiels[5]	AF	8	100
Pacific			
Midway	N	4	150
N. African			
Tripoli[10]	AF	8	500
Asmara[11]	A	8	100
European			
Sprangdahlem[13]	AF	22	400

AREAS: chA:	ch		Watt
Caribbean			
F. Clayton[3]	A	8	500
Ramey	AF	21	1kW
Guantanamo[3]	N	8	180
F. Davis[2]	A	10	200
Roosevelt Rds.[1]	N	8	10
N. Atlantic			
Goose Bay[4]	AF	8	100
Iraklion[14]	AF	8	100
Iraklion[14]		6	30
Ramstein[13]	AF	26	1000
Near East, Far East			
Teheran[15]	A	8	500
Peshawar[20]		11	
Incirklik[20]		3	
Okinawa[17]	AF	8	5kW
AFKN[18]: see Korea.			
Clark[19]	AF	8	100
Misawa[16]	AF	73	30
Clistose[16]	AF	73	1kW

[1] Puerto Rico. [2] Panama Canal Zone. [3] Cuba. [4] Canada. [5] Azores. [6] Bermuda. [7] Greenland. [8] Iceland. [9] Marshall Isl. [10] Libya. [11] Eritrea. [12] Saudi Arabia. [13] Germany. [14] Greece. [15] Iran. [16] Japan. [17] Ryukyu Isl. [18] Korea. [19] Philippines. [20] Turkey. [21] Pakistan.

Continental Electronics, USA: Tr's US Air Force Hamilton AFB, Puerto Rico VHF 250W.

AMERICAN BROADCASTING CO. (A division of American Broadc: Paramount Theatres, Inc.) **Addr:** 7 West 66th St, New York 23, N.Y. **Te:** See Sound Broadc – **L.P:** Pres: L. H. Goldenson. Gen. Mgr. og ABC-TV Network: J. Barnathan. Press Inf: M. J. Foster – **Owned and operated st's:** WABC-TV, New York. **WBKB,** Chicago. **WXYZ-TV,** Detroit. **KABC-TV,** Los Angeles. KGO-TV, S. Francisco.

COLUMBIA BROADCASTING SYSTEM INC, 485 Madison Av, New York 22, N.Y. **Te:** See Sound Broadc – **Owned and operated st's:** WCBS-TV, New York, WBBM-TV, Chicago, KNXT, Los Angeles, WCAU-TV, Philadelphia, KMOX-TV, St. Louis.

NATIONAL BROADCASTING COMPANY, INC, RCA Building, New York 20, N.Y – **L.P:** Chmn. of the Board: R. W. Sarnoff. Pres: R. E. Kintner. Exec. Vice Pres. TV net: W. D. Scott. Vice Pres. Corporate Affairs: R. Kasmire – **Owned st's:** WNBC-TV, 30 Rockefeller Plaza, New York 20, N.Y – WRC-TV, 4001 Nebraska Ave, Washington 16, D.C – WNBQ, Merchandise Mart, Chicago 54, Ill – WRCV-TV, 1619 Walnut Str, Philadelphia 3, Pa – KNBC, Los Angeles, Cal.

CENTRAL AMERICA

COSTA RICA

TELEVISORA DE COSTA RICA (Comm.): Addr: Apt. 3876, San Jose. **Cable:** Television. **Te:** 2537 – **L.P:** Dir: R. Picado, Dir. Tec: Eng. C. M. Reyes – **Station:** TI-TVCR chA7 3.5/1.6kW – **Rel. st's:** Villa Mills chA11 1kW, Zarcero chA12 1kW – **D.Prgr:** 22.00–04.00

R. TELEVISION TIC-TAC (Comm.): Addr: Apt. 4666, San Jose **Te:** 3283. **Cable:** Tictac – **L.P:** Gen. Mgr: A. Vargas – **Station:** ch A9 3/0.6kW H – **D.Prgr:** 10.00–04.00.

CUBA

CM-	ch	kW	Pol: H.	Location
AB-TV	2			Havana*
KU-TV	2	14/7		Santiago de Cuba**
H-TV	3	31/15.5		Santa Clara*
KJ-TV	3	27.5/13.25		Holguin**
BF-TV	4	125/62.5		Havana*
J-TV	4	18/9		Camaguey*
HQ-TV	5			Santa Clara**
LB-TV	5	5/2.5		Santiago de Cuba*
JL-TV	6	56.2/28		Camaguey**
Q-TV	6	125/62.5		Havana**
BA-TV	7			Havana*
FD-TV	7	18.5/9.25		Ciego de Avila**
LC-TV	7			Santiago de Cuba*
LD-TV	8	5/2.5		Holguin*
RA-TV	8			Santa Clara*
FE-TV	9			Camaguey*
GQ-TV	9	3/1.5		Matanzas**
TV	10			Havana*
FG-TV	11			Camaguey**
GH-TV	11	5/2.5		Matanzas*
BJ-TV	12			Havana (Colour)
FF-TV	12			Jatibonica*
G-TV	13	5/2.5		Matanzas*

* **CMBF-TV: Addr:** Mazon y San Miguel, Habana.
** **CMQ-TV: Addr:** Radiocentro, Habana – **D.Prgr:** W 16.30–04.00
Havana st's CMAB-TV e CMBF-TV are operated as one network by the Go. CMQ-TV is operated as a second network with Go-Prgr's.

DOMINICAN REPUBLIC

RADIO SANTO DOMINGO-TV (Comm.): Addr: Calle Miami Sto Domingo. **Cable:** Dominicana – **L.P:** Dir. Gen: J. Cesar M. – **Station:** HISD-TV ch A4 16kW. Satellites: La Cumbre ch A9 500 W. Santo Cerro ch A2 5kW.

RAHINTEL TELEVISION: Addr: Apt. 287, Santo Domingo. Cable: Rahin. Te: 3-1011 – Station: ch A7 1kW H.

EL SALVADOR

TELEVISION SALVADOREÑA S.A. (Comm.): Addr: Apt. 947, San Salvador. Cable: Televisa. Te: 7331 – L.P: Gen. Mgr: A. Vilar – Stations: YSEB-TV ch A6 1.5/0.75kW, YSDR-TV ch A8 40/20kW – D.Prgr: 18.00–20.00, 22.30–04.00.

RADIO TELEVISION YSU, S.A. (Comm.): Addr: See Sound Broadcasting – L.P: Mgr: O. A. Bolaños. Dir. Tec: R. H. Rahn – Stations: YSU-TV ch A4 70/40kW H.
Planned station: YSS-TV Television Nacional, San Salvador ch A2.

GUATEMALA

TELEVISION NACIONAL (Go.): Addr: Edif. de la Tipografia Nacional, Ca. 18 de Septiembre y 7a Ave. Sur, Guatemale. Te: 25045. Cable: Tevenac – L.P: Dir. Gen: M. Mendoza Hidalgo. Dir. Tec: M. Batres – Station: TGW-TV ch A8 1/0.5kW – D.Prgr: 00.00–04.00. Projected st: ch A5 10/5kW.

RADIO-TELEVISION GUATEMALA, S.A. (Comm.): Addr: Apt. 1367, Guatemala. Cable: Television. Te: 24-1-24 – L.P: Gen. Mgr: W. G. Campbell – Station: TG-BOL-TV ch A3 5/2.5kW H.

LA VOZ DE CENTRO AMERICA (Comm.): Addr: 7a Av. 1–19, Z-9, Guatemala – Station: TGTV ch A11 1/0.5kW.

HAITI

TELE-HAITI (Comm.): Addr: P.O. Box 1126, Port-au-Prince. Cable: Telehaiti. Te: 2208 – L.P: Dir. Gen: B. Frank. Mgr: A. S. Apaid. Dir. Tec: Ed. C. Gentil – Station: 4VMR-TV ch A5 2/0.7kW V. A monopoly contract will not allow other TV-stations.

HONDURAS (REP.)

COMPAÑIA TELEVISORA HONDUREÑA S.A. (Comm.): Addr: Apt. Postal 734 Tegucigalpa. Te: 12-93 – L.P: Dir. Gen: M. Brooks H. Dir. Tec: A. D. Lardizabal – Station: HRTW-TV ch A5 4/2kW V. Rel. st: ch A9 20/10kW V – D.Prgr: 18.00–20.00, 23.00–05.00. Projected st: ch A13 8/4kW V (April 64).

JAMAICA

JAMAICA BROADCASTING CORPORATION – FI: By adv. only – Addr & L.P: See Sound Broadc – Stations: Kingston ch A11 0.4kW (Relay st's: Coopers Hill ch A7 22/11 Christiana ch A13 both 23/11.5kW H – Tr's: Canadian GE.
PYE T.V.T., G.B: studio-equipment.

MEXICO

*=affiliated to Telesistema Mexicano – All st's comm. exc. XEIP.

INSTITUTO POLITECNICO NACIONAL (Cultural): Addr: Casco de Santo Tomas, México, DF – Station: XEIP-TV chA11.

TELEVISION DE LA FRONTERA S.A.: Addr: Vicente Guerrero 704, Ci. Juárez, Chih – Station: XEJ-TV chA5 0.5kW.

***TELEVISORA MEXICALI S.A.**: Addr: P.O. Box 1356, Mexicali, B.C – Station: XHBC-TV chA3 30kW – D.Prgr: 00.00–06.00.

TELESISTEMA MEXICANO S.A.: Addr: Edif. Televicentro, Av. Chapultepec 18, México, DF. Te: 18-50-20 – L.P: Pres: E. Azcárraga Jr. St. Mgr: 1st Netw: E. Azcárraga Jr. Mgr: 2nd Netw: R. O'Farril. Mgr: 3rd Netw: Ing. G. González C. Dir. Tec: M. A Pereyra – Stations: 1) XEW-TV chA2 50kW H (México City). Relay st's: XEQ-TV chA9 50kW H (Paso de Cortés), XEWO chA2 – 2) XH-TV chA4 5kW H (México City). Rel. st's: XEX-TV chA7 5kW H (Altzomoni), chA6 10kW H (Cerro del Zamorsno, Méx.) – 3) XHGC-TV chA5 5kW H (México City) – 4) ChA12 (San Antonio, Texas, US) – D.Prgr: 1) Mo–Fri 14.00–20.30, 22.15–06.45, Sat 14.00–20.00, 22.30–05.45, Sun 16.30–06.45 – 2) D 20.30–05.45, Mo–Fri 17.00–17.30, Sat/Sun 15.30–20.00 – 3) D 21.30–05.45, Mo–Sat 17.00–17.30, Sun 17.15–17.45. Test tr. in Colour: D 00.00–01.00.

TELEVISION DEL NORTE S.A.: Addr: P.O. Box 1833, Monterrey, N.L. Te: 2-62-00 – L.P: Pres: A. Garza Lagüera. Gen. Mgr: H. Cantu Tijerina. Dir. Tec: Ing. O. Garcia R – Station: XET-TV chA6 20kW H – D.Prgr: W 22.15–06.00.

RADIO TELEVISION S.A: Addr: Apt. Postal 121, Tijuana, B.C – L.P: Dir. Gen: E. Azgárraga V. Dir. Tec: Ing. A. Frías Ramírez – Station: XE-TV chA6 20kW – D.Prgr: 15.00–07.00 – F.Pl: Color-TV in 1965.

***TELEVICENTRO DE MONTERREY**: Addr: Privada Alameda y Espinosa, Monterrey, N.L. Te: 2-01-01 – L.P: Gen. Mgr: M. Quintanills G. Dir. Tec: R. Rueda – Stations: XEFB-TV chA3 15/7.5kW H. XHX-TV chA10 84/42kW H.

***TELEVISION DE NUEVO LAREDO**: Addr: Aldama 2611, Nuevo Laredo, Tams. Te: 21-82 – L.P: Gen. Mgr: R. Tijerina C – Station: XEFE-TV chA11 0.5kW.

TELEVISION TAPATÍA S.A. de C.V: Addr: P.O. Box 5, Guadalajara, Jal. Te: 4-82-82. Telex: 06-830 – L.P: Gen. Mgr: A. Diaz G. Dir. Tec: Ing. C. Sánchez – St: XHT-TV chA6 5kW H.

***TELEVISORA DE LA LAGUNA**: Addr: Torreón, Coah – St: XELN-TV chA4 0.5kW – **TELEVISION DE CIUDAD JUAREZ**: Addr: P.O. Box 271, Ci. Juárez, Chih – L.P: Gen. Mgr: S. R. Molinar F – Station: XEPM-TV chA2 10kW – ***TELEVISORA DE CHIHUAHUA S.A**: Addr: Chihuahua, Chih – Station: XERA-TV chA11 0.25kW H.

***TELEVISORA DE HERMOSILLO S.A**: Addr: P.O. Box 603, Hermosillo, Son. Te: 3-66-66 – L.P: Gen. Mgr: R. Azcárraga. Dir Tec: Ing. E. Téllez – Station: XEHW-TV chA6 100kW H.

***TELEVISORA DE OCCIDENTE S.A**: Addr: Av. Alemania 285, Guadalajara, Jal. Te: 4-41-40 – L.P: Gen. Mgr: M. de Coso Y. Dir. Tec: R. Venegas – Stations: XEWO-TV chA2 5/2.5kW H, XHG-TV chA4 5/2.5kW H – D.Prgr: XEWO-TV: As Telesistema Mexicano 1st Netw. XHG-TV: D 17.45–06.45 – ***TELEVISORA DE CALIMEX S.A**: Addr: Tijuana, B.C – XEWT-TV chA12 5kW.

***TELEVISORA DE NOGALES S.A**: Addr: Av. Alvaro Obregón 138, Nogales, Son. Te: 5-62 – L.P: Gen. Mgr: Dr. F. Arriola G. Dir. Tec: Ing. C. P. Morreale – Station: XHFA-TV chA2 1kW.

TELEVISORA DE YUCATAN: Addr: Ca. 60, No. 385, Merida, Yucatan – L.P: Dir. Gen: A. Garcia Lavín. Dir. Tec: Ing. A. Serhant R – Station: XHY-TV chA3 25kW d – **TELEVISIÓN DE COLIMA S.A. de C.V**: Addr: Anillo Circunvalación 1080 Nte, Colima, Col – Station: XHCC-TV chA5 1kW.

Ampex Videotape (TM Ampex), USA: XERA-TV (TS) (Chihuahua), XEWO-TV (TS) (Guadalajara), XEWH-TV (TS) (Hermosillo), XEJ-TV (Juarez), XEFE-TV (TS) (Laredo), XEM-TV (TS) Mexicali), Corp. Mexicana XEW-TV (TS), XHGG-TV, Telesistema (Mexico City), XHNL-TV (Monterrey), XHGO-TV (TS) (Tampico), XEWT-TV (TS), XETV (Tijuana), XHLN-TV (TS) (Torreon).
Pye T.V.T, GB: Tr, ant, studio equip, OBV to XEIP-TV.

NETHERLANDS ANTILLES

TELECURAÇAO (Comm.): Addr: P.O. Box 415, Curaçao. Cable: Telecuracao. Te: 13140 – L.P: Pres: G. A. Bartell. Gen. Man: Miss Madeleine de Ryke – Station: ch E8 3.5kW H – D.Prgr: 21.30–04.00.

NICARAGUA

TELEVISION DE NICARAGUA, S.A. (Comm.): Addr: Apdo 1505, Managua. Cable: Tevenic. Te: 5404 – L.P: Dir. Gen: R. O. Cano. Dir. Tec: A. Lopez – Stations: YNSA-TV: ch A8 0.3/0.15kW, V and ch A6 6/3kW – D.Prgr: 17.00–04.30.

PANAMA

CIRCUITO RPC-TELEVISION (Comm.): Addr: & L.P: See Sound Broadc – Stations: HOHM-TV ch A4 45/22.5kW – *HOF33-TV Chitre ch A5 0.5/0.25kW – *HOH4-TV David ch A6 0.5/0.25kW – *HOF34-TV Sona ch A7 0.275kW – HOHM-TV ch A12 25/12.5kW (rel. ch A4) – D.Prgr: 16.30–18.15, 21.00–04.30. * under construction.
Ampex Videotape (TM Ampex), USA.

TELEVISORA NACIONAL S.A. (Priv, Comm.) – Addr: Apt. 8371, Panama. Te: 3-1724. Cable: Tenasa – L.P: Gen. Mgr: R. Garcia de Poredes C. Dir. Tec: J. Stabile – Stations: HOU 34-TV ch A2 90/45kW – HP5C-TV ch A6 0.5/0.25kW* – D.Prgr: 17.00–04.30. Test-tr: 16.25–17.00. * St. under construction.

VOZ DEL BARU: Addr. & L.P: See Sound Broadc.
Station: HOU31 TV ch A10 1/0.5kW (under construction).

PUERTO RICO

Call	chA	kW	Comm. exc. Dept. of Education
WKAQ-TV	2	100/50	El Mundo Inc, Box 5096, Puerta de Tierra
WIPM-TV	3	35.5/17.8	Dept. of Education, Hato Rey, San Juan.
WAPA-TV	4	56.2/33.9	Ponce de Leon Broadc. Co. of P. R, P.O. Box 2050, S. Juan[1].
WORA-TV	5	100/50	Supreme Broadc. Co. Inc. of P. R. Box 43, Mayaguez[2].
WIPR-TV	6	100/50	Dept. of Education, P.O. Box 306, S. Juan.
WRIK-TV	7	62/31	Ponce TV Corpo, Darlington Bldg[3].
WSUR-TV	9	2.7/1.35	American Colonial Broadc. Corpo, Box 4189, San Juan. Tr. in Villalba[4].
WKBM-TV	11	2.7/1.3	American Colonial Broadc. Corpo, Box 4189, San Juan. Tr. Caguas[5].
WOLE-TV	12	33.1/16.6	Western Broadc. Corpo, Box 2050, San Juan. Tr. in Pico Atalay, A. Ricon[5].

Ampex Videotape (TM Ampex), USA: WAPA, WIPR, WKAQ, WKBM.

TRINIDAD

TRINIDAD AND TOBAGO TELEVISION CO, Ltd. (Comm). A joint private enterprise between majority joint-share-holders, Rediff Ltd. and Scottish Television Ltd, with participation by C.B.S. and Go. Addr: Television House, Maraval Roda Port-of-Spain. Cable: Television Trinidad. Te: 21375 – L.P: Gen. Mgr: R. F. Goodsman· Station: ch A2 15kW H. Pye T.V.T, GB: Studio equip.

VIRGIN ISLANDS

ISLAND TELERADIOSERVICE. Inc – Addr: P.O. Box 1947, St. Thomas – L.P: Pres: R. Moss. Station: WBNB-TV ch A10 2.5/1.25.

SOUTH AMERICA

ARGENTINA

All st's comm. (exc. Primera TV Argentina – Go.).

PRIMERA TELEVISORA ARGENTINA: Addr: Av. Alem 735, Buenos Aires. Te: 32-7090 – L.P: Dir: A. J. M. Moreno. Dir. Tec: F. Licht. Chief Eng: M. Koeble. Station: LS82-TV ch A7 40kW – Rel. St: Rosario ch A7. D.Prgr: 13.00–03.30.

CA-DE-TE: Addr: Av. F. Alcorta 3428 y Castex 3345, Buenos Aires. Te: 72-3073. L.P: Dir: I. Recalde – Station: LS83-TV ch A9 40kW.

TELEONCE: Addr: Cas. Correo 268, Buenos Aires. Te: 910600 – L.P: Dir: R. L. Stahlberg. Station: LS84-TV ch A11 10/5kW.

RIO DE LA PLATA: Addr: San Juan 1160, Buenos Aires. Te: 273601. L.P: Dir. Gen: A. Costantini – Station: LS85-TV ch A13 115/57.5kW H – D.Prgr: 13.00–04.00.

DIFUSORA MARPLATENSE: Addr: Av. Luro 2907, Mar del Plata – L.P: Gen. Mgr: M. A. Etchichury. Dir. Tec: R. Casanova – Station: LU86-TV ch A8 5kW H – D.Prgr: 21.00–03.00.

SOCIEDAD DIFUSORA MENDOZA: Addr: Garibaldi 7, Mendoza. Te: 17335. L.P: Dir. Gen: A. Anguita. Station: LV89-TV ch A7 2/1kW H – D.Prgr: 20.00–03.00. Test tr. 15.00–17.30.

TELECOR, S. A: Addr: Av. Gral Paz 266, Cordoba. Te: 87685. L.P: Mgr: J. A. Smith. Stations in Fernando Fader 111, Cerro de las Rosas, Ci. de Cordoba: LU1H ch A12 0.5kW H. D.Prgr: 21.00–02.00.

TELEVISION UNIVERSIDAD CORDOBA
Addr: Rivera Indarte 170, Cordoba – St: ch A10.
Ampex Videotape (TM Ampex), USA: LS-3, LS-82, LS-85.
AKG, Austria: studio equip. (ch 7, 9, 11) recorders, microphones.

BRAZIL

*) Belongs to Emissoras Associados (Chateaubriand Group) – **) belongs to "Rede Unidas de Televisao" – ***) belongs to organization "Victor Costa".

*) **TELEVISÃO-TUPI**: Addr: Av. Joao Luiz Alves 14-Urca, Rio de Janeiro – L.P: Dir. Gen: Dr. N. G. Bastos. Dir. Tec: Dr. J. P. Bodin – Station: chA6 25kW H – D.Prgr: 18.30–03.00 (Sun 14.40–03.00). Relay st's: TV-Mariano Procopio chA10 0.5/0.25kW (Juiz de Fora, MG): 21.00–02.00. TV-Tupi Difusora chA3 (Ribeirão Preto, SP): 20.35–22.45 local prgr's, 23.00–03.00.

) **TELEVISÃO-RIO: Addr: Av. Atlantica 4264, Rio de Janeiro. Cable: Teverio – L.P: Mgr: J. Baptista de Amaral Jr – Station: chA13 36/18kW H – D.Prgr: Mo–Fri 18.30(Sat/Sun 15.00)–03.00. Relay St's: TV-Juiz de Fora, MG chA5 5/2.5kW H, TV-Lafaiete chA6 5/2.5kW H. TV-Guaratigueta chA12 5/2.5kW H.

EMISSORA DE TELEVISÃO CONTINENTAL: Addr: Rua das Laranjeiras 291, Rio de Janeiro. Te: 42-6419 – L.P: Dir. Gen: C. Berardo. St. Mgr: C. B. Carneiro da Cunha. Dir. Tec: J. M. Franciscus Zayen – Station: chA9 10kW H – D.Prgr: 21.00–04.00.

TELEVISÃO MAYRINK VEIGA: Addr: Rio de Janeiro – Station: chA2 25kW.

TELEVISÃO GLOBO: Addr: Rua Irineu Marinho 35, Rio de Janeiro – L.P: Dir. Gen: Dr. R. Marinho – Station: chA4 25kW.

*) **TELEVISÃO TUPI**: Addr: Biarro Sumare, São Paulo, SP – L.P: Dir: Dr. E. Monteiro – Station: chA2 5kW – D.Prgr: 12.00–03.00.

*) **TELEVISÃO CULTURA**: Addr: Rua Sete de Abril 230, São Paulo – Station: chA2 5kW – D.Prgr: 19.00(Sun 17.00)–03.00.

***) **TELEVISÃO PAULISTA**: Addr: São Paulo, SP – Station: chA5 10kW – D.Prgr: W 18.00–02.00. Sun 14.08–01.40.

) **TELEVISÃO RECORD: Addr: São Paulo, SP – L.P: Dir. Gen: E. A. Amaral Carvalho – Station: chA7 36/18kW H.

TELEVISÃO EXCELSIOR: Addr: Rua Nestor Pestana, São Paulo – Station: chA9 10kW – D.Prgr: 22.00(Sat/Sun 21.00)–04.00.

*) **TELEVISÃO-TUPI**: Addr: Ribeirão Preto, SP – Station: chA13 1kW – D.Prgr: rel. TV-Tupi, São Paulo, exc. 21.00–23.00.

***) **TELEVISÃO BAURU**: Addr: Bauru, SP – Station: chA2 0.5kW – Operates in conjunction with TV-Paulista, São Paulo.

*) **TELEVISÃO ITACOLOMI**: Addr: Av. Tocantins 499, Belo Horizonte, MG – L.P: St. Mgr: Dr. C. T. da Costa. Dir. Tec: V. P. Netto – Station: chA4 10/6kW H, chA2 (TV Alterosa) 36/21kW H.

*) **TELEVISÃO PIRATINI**: Addr: Rua Vigario José Inacio 371, Porto Alegre, RGS – L.P: Dir: F. Peres. Dir. Tec: J. Carpes – Stations: chA5 6/3.15kW V – D.Prgr: 15.00–16.30, 20.00–02.30.

TELEVISÃO JORNAL DO COMERCIO: Addr: Recife – Station: chA2 20kW.

*) **TELEVISÃO CLUBE DE PERNAMBUCO**: Addr: Av. Cruz Cabuga 394, Recife, PE – Station: chA6 25kW.

*) **TELEVISÃO ITAPOAN**: Addr: Rua Carlos Gomes 57, Salvador, BA – L,P: Dir. Gen: O. Tavares. Dir. Tec: M. Saliverus – Station: chA5 10/2kW – D.Prgr: W 21.00–02.00. Sun 17.25–02.35 –

TELEVISÃO NACIONAL (Go): Addr: Emprenza Incorporado ao Patrimonio Nacional, Brasilia, DF – Station: chA2 2kW.

) **TELEVISÃO BRASILIA: Addr: Av. W-3, Brasilia, DF – Station: chA6 5kW – D.Prgr: 15.00–17.00, 21.00–03.00.

) **TELEVISÃO ALVORADA: Addr: Brasilia – Station: chA8 5/2.5kW – D.Prgr: 22.30–02.00.

*) **TELEVISÃO PARANA**: Addr: Rua J. Loureiro 119, Curitiba – L.P: Dir: C. Guilherme Addor. Dir. Tec: J. Louro – Station: chA6 10kW – D.Prgr: 19.57–02.30.

TELEVISÃO FARROUPILHA: Addr: Galeria Rosario 22, Andar, Porto Alegre, RGS. Te: 4544 – L.P: Dir. Gen: F. Peres. Dir. Tec: J. Carpes – Station: Piratini chA5 6/3.15kW.

TELEVISÃO PARANAENSE: Addr: Senador Alencar Guimarães 97, Curitiba, PA – L.P: Dir. Gen: Dr. N. Chede. Dir. Tec: O. B. Freire – Station: chA12 10/5kW H.

*) **TELEVISÃO CEARA**: Addr: C.P. 222, Fortaleza, CE – Station: chA2 10kW – D.Prgr: W 20.00–01.00. Sun 18.30–01.20.

TV-GUARATINGUETA: Guaratingueta, SP – Station: chA12·

TV-LAFAIETE: Addr: Conselheiro Lafaiete, MG – Station: chA12.

TV-MARAJOARA: Addr: Av. Governador J. Malcher 1325, Belém, PA – Station: chA2 10kW.

TV RADIO CLUBE: Addr: C.P. 62, Goiania. Te: 4041 – L.P: Dir. Gen: F. B. Sobrinho – Station: chA4 5/2.5kW.

TV-VITORIA: Addr: Edif. Moyses 114 andar, Vitoria, ES Station: chA4 5kW – D.Prgr: 22.00–01.00.

TV-BANDEIRANTES: Addr: São Paulo, SP – Station: chA13.

TV-GAZETA: Addr: São Paulo, SP – Station: chA11.

PROJECTED STATIONS (to be inaugurated 1964): TV-Anhanguera, Goiania, Go – TV-Princesa, Porto Alegre, chA10 – TV-Tamandare, Recife – TV-Diario Carioca, Rio de Janeiro, chA11.
Ampex Videotape (TM Ampex): TV Alvorada (Brasilia), TV Gaucha (Porto Alegre), ch2 (Recife), Rio, TV Cont, TV Rio (Rio de Janeiro), ch7, ch9, ch13, TV Excelsior, TV Paulista (São Paulo).
The Marconi Company, Ltd, G.B: TV tr's: Jornal de Comercio (Recife) 1×18, 1×9kW, R. Bandeirantes S.A. (São Paulo) 2×5, 1×5kW – Ant: Jornal de Comercio – Studio equip: Jornal de Comercio, R. Bandeirantes, S.A – OBV: Jornal do Comercio.
Pye T.V.T, GB: Tr, ant, studio equip to TV Gaucha, Porto Alegre.

CHILE

UNIVERSIDAD CATOLICA (Educ): Addr: Av. Brasil 2950, Valparaiso. Te: 30091 – L.P: Dir. Tec: P. Caraball – Station: ch A13 10kW H – D.Prgr: 23.00–02.00 Thues, Thurs, Sun.

UNIVERSIDAD DE CHILE (Educ): Addr: Santiago – L.P: Dir: O. R. Aicardi. Dir. Tec: B. Dezerega – Station: ch A9 40kW V.

COLOMBIA

R. TELEVISORA NACIONAL (Go.): FI: By State and adv – Ad: 40% of prgrs. are non-comm. remainder carry comm. ann – Addr: Direccion General de la Radiotelevisora Nacional de Colombia, Apt. Nac. 1824, Bogotá – L.P: Dir. Gen: C. Simmonds P. Dir. Tec: W. Puth.

Stations:	ch	kW		ch	kW
Bogotá	A9	45/225d	Madroño	A11	80/40
Medellin	A3	15/12.5d[2]	El Quindio	A9	40/20
Manizales	A9	100/50d	Boyaca	A7	20/10d
Alto Magdalena	A7	600/300d	Tunja	A10	20/5
Cali	A7	120/30d	Valle del Cauca[1]	A7	60/30
Cali[1]	A10	10/2W	Paz del Rio[1]	A7	150/40W
Manjui	A7	400/220[2]	Bucaramanga[1]	A10	5/2

[1] Satellite st's. [2] Exp – D.Prgr: 20.00–21.00, 23.30–04.30.
Under construction (to open 1964): C. Quemado ch A4 900/400kW – El Carmen de Bolivar ch A10 40/20kW – Neiva ch A9 100/50 kW – Monteria A7 100/50kW – Las Jurisdicciones ch A5 200/50kW – Purace ch A11 40/20kW – Galeras ch A2 5/2.5kW – Pasto ch A2 50/25kW – Popayan ch A11 50/25kW – Santa Maria ch A7 40/20kW – Quibdo ch A13 25/12.5kW.
Ampex Videotape (TM Ampex).

ECUADOR

LA VOZ DE LOS ANDES-TELEVISION (Priv, non-comm, cult.) Addr. & L.P: Se Sound Broadcasting – Station: HCJB-TV ch A4 5/0.25kW H – D.Prgr: D exc. Mo 00.00–03.00.

PRIMERA TELEVISORA EDUCATORIANA (Comm.): Addr: P.O. Box 3875, Guayaquil – L.P: Mgr: J. Rosenbaum – Station: ch A4 2/2kW H – D.Prgr: 22.30–03.40.

PERU

CULTURAL

MINISTRY OF EDUCATION (Go): Addr: Ministerio de Educación Pública, Dirección de Cultura, Lima. Te: 75737 – L.P: Dir. Gen: R. Garrido M. – Station: OAD-TV chA7 0.1/0.05kW H.

COMMERCIAL

TELEVISORA AMERICA: Addr: Montero Rosas, Lima. Te: 42919 – L.P: Mgr: N. Gonzales V. Dir. Tec: D. Capella – Stations: 1) chA4 30kW, 2) Piura chA2 8kW, 3) Chiclayo chA4 8kW, 4) Trujillo chA4 8kW - Relay st's: 1) Huacho ch6, Ica ch6, Ancon ch6, 2) Talara ch6.

TELEVISORA PANAMERICANA: Addr: Av. Arequipa 1110, Lima. Te: 34240 – L.P: Mgr: G. Delgado P. Dir. Tec: M. Flores – Stations: 1) chA13 2/4kW, 2) Trujillo, ch7 0.58kW, 3) Piura, chA7 0.58kW, 4) Chimbote, chA9 0.3/0.75kW, 5) Chiclayo, chA9.

TELEVISORA VICTORIA: Addr: Av. Tacna 225, Lima. Te: 3-5945 – L.P: Mgr: J. E. Cavero – Stations: 1) chA2, 2) Huancayo, chA3, 3) chA6, 4) Cuzco, chA6.

TELEVISORA EXCELSIOR: Addr: Av. Manco Capac, Lima – L.P: Mgr: A. Belmont B – Station: chA11.

TELEVISORA EL SOL: Addr: J. Galvez 1040, Lima. Te: 35490 – L.P: Mgr: N. Gonzales V – Station: chA9 5/10kW. Relay st's: Huacho chA7, Ica chA11 – D.Prgr: 23.30(Sun 23.00)–05.00.

TELEVISORA SUR-PERUANA: Addr: Cas. 514, Arequipa. Te: 3090 – L.P: Mgr: G. Quintanilla. Dir. Tec: E. Tchuschke – Stations: 1) chA2 0.25/0.5kW, 2) Tacna: chA2 – D.Prgr: 18.00–04.30.

TELEVISORA CONTINENTAL: Addr: Rivero 101, Arequipa – Station: chA6 8kW – D.Prgr: 20.00–05.00.

Ampex Videotape (TM Ampex), USA: R. America TV, Lima.

URUGUAY

SAETA: Addr: Avda. Uruguay 1031, Montevideo. Cable: Saeta. Te: 9-72-80 – L.P: Dir. Gen: R. Fontaina. Gen. Mgr: M. Perrotti – Station: ch A10 0.5kW H – D.Prgr: 12.00–16.00 (Sun), 21.00–03.30.

SODRE: Addr: Bulevard Artigasy Colorado, Montevideo – Station: ch A5 5/2.5kW – D.Prgr: 23.30–02.00 – Projected St's: ch A6 32.5kW, ch A12 100kW.

TELEVISORA LARRANAGA S.A. (Comm.): Addr: Montevideo – L.P: Pres: G. Garcia O. Dir. Tec: M. Giampietro – Station: CXA12-TV ch E12 25/12.5kW – D.Prgr: 15.00–03.00.

MONTE CARLO TV (Comm.): Addr: Av. 18de Julio 1855, Montevideo. Cable: Montecarlotv. Te: 402146 – L.P: Dir. Gen: H. Romay Salvo. Dir. Prgr: F. Elices Elorza – Station: ch A4 25/14kW H.

VENEZUELA

Def: 625 – Ch: A– – Pol: H.

TELEVISORA NACIONAL (Go) – Addr: Apt. 3979, Caracas. Te: 545436 – L.P: Dir. TV: Dr. A. Pizani P. Dir. Tec: G. Lebrun. Station: YVKA-TV chA5 37.2/18.6kW – D.Prgr: 21.30–04.30.

CORPORACION VENEZOLANA DE TELEVISION S.A. (Comm.) – Addr: Apt. 6674, Caracas. Te: 722741 – L.P: Dir. Tec: M. Sapkowski – Stations: Barquisimeto chA6 84/42kW, Carabobo chA9 84/42kW, Caracas chA4 75/37.5kW, Curimagua chA11 100/50kW, Maracaibo chA4 50/25kW, Puerto Cruz chA6 250/125kW, Vargas chA9 12/6kW – D.Prgr: 22.30–04.30.

R. CARACAS TV (Comm) – Addr: Apt. 2057, Caracas. Te: 418971 – L.P: Dir. Gen: A. Espina. Dir. Tec: J. Marcano – Stations: YVKS-TV: Barquisimeto chA3 20/10kW, Carabobo chA7 12.8/6.4kW, Caracas chA2 62.6/31.3kW, Curimagua chA10 300/165kW, Estado de Tachira chA7, La Guaira chA7 10/5kW, Maracaibo chA2 600/300kW, Puerto La Cruz chA7 1/0.8kW – D.Prgr: 12.30–05.00.

ONDAS DEL LAGO (Comm) – Addr: Apt. 261, Maracaibo – L.P: Pres: N. Vale. Dir. Tec: I. Salcedo – Station: chA13 12/6kW.

R. VALENCIA TV (Comm) – Addr: Valencia – L.P: Dir: T. Gubaira – Station: chA3 4/2kW – D.Prgr: 22.30–04.30.

Ampex Videotape (TM Ampex), USA: R. Caracas, Venevision, YVLV-TV. The Marconi Company Ltd, G.B: R. Caracas: 1×3W TV-tr, 1 Amplifier 50W, CVT: TV-tr's 1×1, 1×5kW (Barquisimeto), 1×2, 1×10kW (Maracaibo), 1×3, 1×5kW (Agaraigua), 1×1, 1×4kW (Picacho) – Ant: Maracaibo, Picacho – Studio equip: Barquisimeto, Maracaibo, Picacho – OBV: Picacho (2).

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selectivity: 0.2 — 10 Kc/s at 6 dB down, 6-step bandwidth selector
Easy operation: linear dial, 500 Kc/s calibration oscillator, motor driven tuning, S-meter

As all Philips radio receivers are adapted to the special conditions and requirements of the various countries in which they are sold please contact the local Philips organisation for all information on the special short-wave receivers available.

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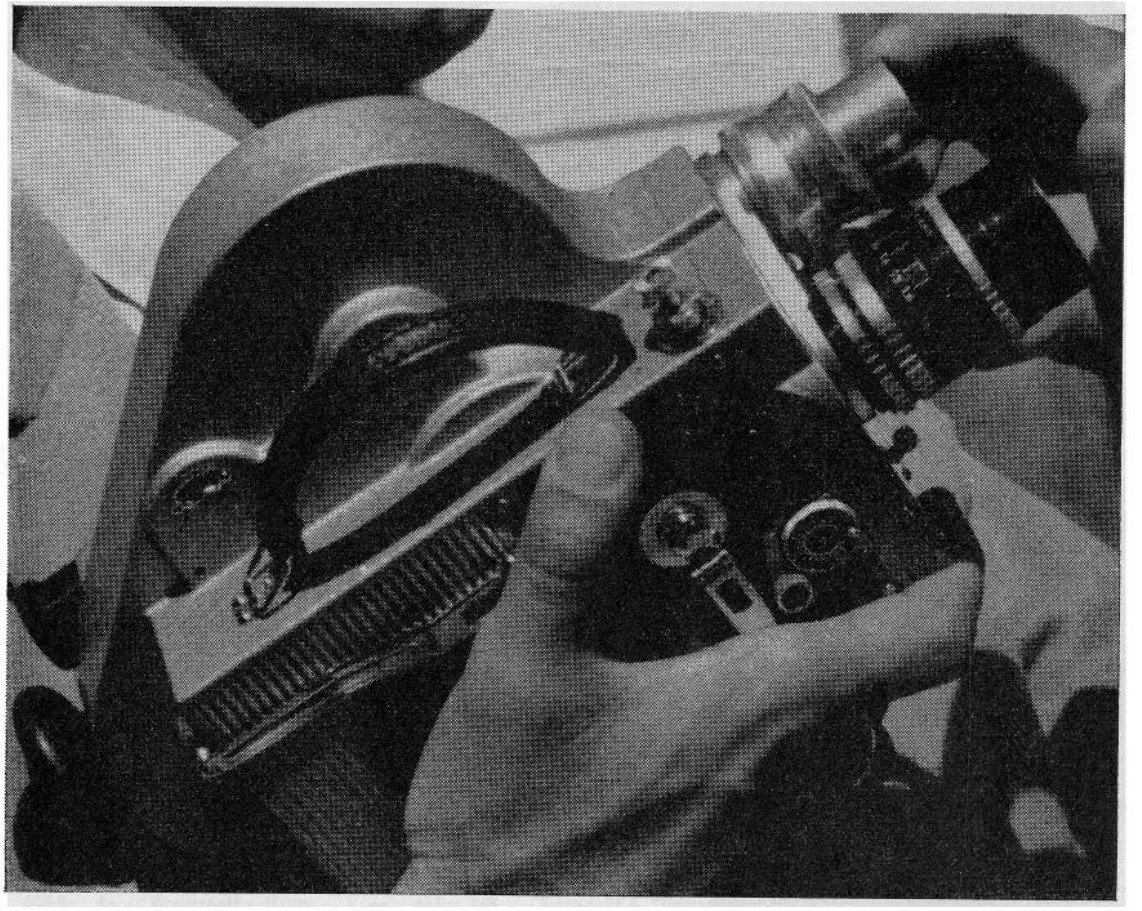

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LONG- AND MEDIUM WAVE STATIONS

EUROPE — NORTH AFRICA — NEAR EAST

For medium waves of the other countries see the individual countries.

Alg. = Algeria; Az. = Azores; Aust. = Austria; Belg. = Belgium; Bulg. = Bulgaria; C. Isl. = Canary Islands; Cyp. = Cyprus; Czecho. = Czechoslovakia; Den. = Denmark; F. = France; Faeroe. = Faeroe Islands; Finl. = Finland; G. = Germany; Gr. = Greece; Gt. Br. = Great Britain; Holl. = Holland; Hung. = Hungary; Icel. = Iceland; It. = Italy; Mon. = Monaco; Mor. = Morocco; No. = Norway; Port. = Portugal; Rum. = Rumania; REM = Red de Emisoras del Movimiento; Sp. = Spain; Sw. = Sweden; Switz. = Switzerland.

kc/s	Metres	kW	Stations
151	1987	50	**Moscow I** - USSR
—	1986	50	**Mainflingen (Deutschl.funk)**
155	1935	10	**Tromsø** - Norway
—	1935	150	**Brasov** - Rumania
164	1829	250/500	**Allouis** - France
173	1734	1000	**Munich (RIAS)** - G.
—	1734	500	**Moscow I** - USSR
182	1648	10	**Luleå** - Sweden
—	1647	400/1000	**R. Europe I** - Saar
—	1648	240	**R. Ankara** - Turkey
185	1622	200/1000	**Deutschlands.** - G.
191	1571	600	**Motala** - Sweden
—	1571	50	**Tbilisi** - USSR
200	1500	100	**Moscow II** - USSR
—	1500	400	**Droitwich** - Gt. Br.
209	1435	150	**Kiev I** - USSR
—	1435	100	**Reykjavik** - Icel.
218	1376	200	**Oslo** - Norway
—	1376	50	**Baku** - USSR
227	1322	500	**Warsaw I** - Poland
233	1287	500	**Luxembourg I**
236	1271	100	**Moscow I** - USSR
—	1271	100	**Leningrad I** - USSR
245	1224	150	**Kalundborg I** - Den.
254	1181	200	**Lahti** - Finland
263	1141	150	**Moscow II** - USSR
—	1141	20/150	**R. Wolga** - (DDR)
272	1102.9	200	**CS I** - Czechoslov.
281	1068	100	**Minsk** - USSR
340	882	—	**Saratov** - USSR
362	829	—	**Yerevan** - USSR
365	820	20	**Moscow II** - USSR
385	779	50	**Moscow II** - USSR
400	750	50	**Minsk** - USSR
433	693	10	**Oulu** - Finland
520	577	2	**Braunschweig - (NDR)** - Germany
—	577	1	**Joensuu** - Finland
—	577	—	**4 low power (BR)**, G
—	577	0.05	**2 low power** - Aust.
—	576.9	10	**Aldrans II** - Austria
—	576.9	10	**Lienz II** - Austria
—	577	0.25	**Rørås** - Norway
529	561.1	20	**Schwerin (DDR)** - G.
—	561.1	150	**Beromünster** - Switz.
539	556.5	135	**R. Kossuth** - Hung.
—	556.5	0.05	**Bayonne II** - F.
540	556	0.005	**3 low power** - Italy
548	547.4	100	**Odessa** - USSR
—	547.4	100	**Munich (AFN)** - G.
557	539	100	**Helsinki I** - Finland
—	538.6	50	**Cairo III** - Egypt.
—	538.6	4	**Bucuresti** - Rum.
—	538.6	50	**M. Ceneri** - Switz.
—	538.6	5	**Greifswald** (DDR)
—	538.6	1	**2 low power** - Port.
—	539	10	**Volgograd** - USSR
566	530	100	**Athlone** - Ireland
—	530	10	**Caltanisetta I** - It.
—	530	20	**Freies Berlin** - G.
—	530	0.1/0.05	**8 low power** - Aust.
—	530	300	**Damascus** - Syria
575	522	100	**Mühlacker (SDR)** - G.
—	522	100	**Riga I** - USSR
575	521.7	100	**Leipzig (DDR)** - G.
—	521.7	50/10	**Tel Aviv** - Israel
584	514	4	**Paris III** - France
—	513.7	5	**Torshavn** - Faroe.
—	513.7	200	**Madrid (RNE)** - Sp.
—	513.7	25	**Klagenfurt II** - Aus.
—	513.7	0.05	**Sfax I** - Tunisia
—	513.7	10	**Salzburg II** - Aust.
—	513.7	150	**Wien II** - Austria
—	513.7	0.05	**Mayerhofen** - Aust.
593	505.9	150	**Sundsvall** - Sweden
593	505.8	100	**Frankfurt (HR)** - G.
—	505.8	20	**Meissner (HR)** - G.
—	505.8	60	**Sofia II** - Bulgaria
—	506	100	**Oujda I** - Morocco
602	498.4	20	**Karl-Marx-Stadt, G.**
—	498.4	5	**Sfax II** - Tunisia
—	498	100	**Lyon I** - France
606	495	20	**Nicosia** - Cyprus
610	491.8	2	**R. Bahrain**
611	491	10	**Nürnberg-Grafenwöhr** - Germany
—	491	10	**Kaiserslaut.** - G.
—	491	140	**Sebaa-Aioun** - Mor.
—	491	1	**Hoefn** - Iceland
—	491	300	**Berlin (DDR)** - G.
—	491	100	**Petrozavodsk, USSR**
—	491	100	**Sarajevo** - Yugosl.
—	490.9	20	**Krasnodar** - USSR
620	483.9	450	**Batra I** - Egypt.
—	483.9	150	**Bruxelles I** - Belg.
628	477	30	**Timisoara II** - Rum.
629	477	100	**Vigra I** - Norway
—	477	300	**Tunis I** - Tunisia
—	476.9	25	**Aldrans I** - Austria
—	476.9	25	**Lauterach I** - Aust.
—	476.9	1	**Lienz I** - Austria
—	476.9	20	**Erfurt (DDR)** - G.
630	476	0.25	**AFRS** - Iran
638	470.5	100	**BBC** - Cyprus
—	470.5	25	**San Sebastian** - Sp.
—	470.2	150	**Praha** - Czechoslov.
647	463.6	100	**Simferopol** - USSR
—	463.5	5	**Sevilla (RNE)** - Sp.
—	464	150	**Daventry** - Gt. Br.
—	464	150	**Crowbor.**, Gt. Br.
—	464	2	**4 low power** - Gr.Br.
—	464	1	**Riyadh** - S.Arab.
—	461.5	5	**R. Tabriz** - Iran
656	457.3	20	**Bolzano I** - Italy
—	457.3	80	**Firenze I** - Italy
—	457.3	80	**Napoli I** - Italy
—	457.3	35	**Torino I** - Italy
—	457.3	10	**Venezia I** - Italy
—	457.2	20	**Berlin (DDR)** - G.
—	457.3	150	**Murmansk** - USSR
—	457.3	100	**Tel Aviv** - Israel
660	454.5	20	**R. Kabul** - Afghan.
665	451.2	15	**Athens III** - Greece
—	451.2	5	**Eidar** - Iceland
—	451.2	50	**Damascus** - Syria
—	451	20	**Bad Dürrheim** - G.
—	451	20	**Ravensburg (SWF)**
—	451	10	**Reutlingen (SWF)**
—	451	135	**Lisboa I** - Portugal
—	451	100	**Vilnius I** - USSR
674	445.1	10	**Bodö** - Norway
—	445.1	100	**Tjernovtsy** - USSR
—	445	150	**Marseille I** - France
—	445	0.05/0.1	**8 low power** - Aust.
677	443	20	**Jerusalem** - Jordan
680	441.2	1	**R. Rasht** - Iran
683	439	150	**Beograd** - Yugosl.
—	439	40/100	**Berlin/Hof (RIAS)**
684	439	100	**Madrid (RNE)** - Sp.
692	433.5	20	**Moscow II** - USSR
—	434	1	**Bouira** - Algeria
—	434	20	**Nicosia** - Cyprus
—	433.8	200	**Deutschlands.** - G.
—	434	2	**Cromer** - Gt. Br.
—	434	150	**Moors. Edge**, Gt. Br.
—	434	2	**Whitehaven** - Gt. Br.
701	427.8	2	**Norden (NDR)** - G.
—	427.8	2	**Lingen (NDR)** - G.
—	428	5	**Aachen (WDR)** - G.
—	428	2	**Siegen (WDR)** - G.
—	428	2	**Herford (WDR)** - G.
701	428	150	**Istanbul** - Turkey
—	428	140	**Sebaa-Aioun** - Mor.
—	428	20	**Finnmark** - Norway
—	427.2	100	**Bratislava** - Czecho.
710	422	150	**Rennes I** - France
—	422.5	150	**Donetsk** - USSR
—	422	100	**Cairo II** - Egypt
—	422	150	**Tallinn** - USSR
—	422	1	**Jerusalem** - Israel
712	418	100	**La Coruna** - Spain
719	417.2	135	**R. Free Europe** - G.
—	417.2	100	**BBC** - Cyprus
—	417.2	25	**Norte I** - Portugal
—	417.2	150	**Östersund** - Sweden
—	417.2	2	**Damascus** - Syria
723	414	50	**Jeddah** - S. Arabia
728	412	25	**Klagenfurt I** - Aust.
—	412	150	**Athens I** - Greece
—	412.1	220	**Deutschlands.** - G.
737	407.1	40	**Hof (RIAS)** - G.
—	407.1	100/200	**Tel Aviv** - Israel
—	407.1	5	**Akureyri** - Iceland
—	407.1	300	**Poznan** - Poland
—	407.1	20	**Barcelona** - Spain
—	407.1	20	**Moscow II** - USSR
746	402	20	**Aleppo** - Syria
—	402	—	**Cottbus** - G.
—	402	120	**Hilversum I** - Holl.
—	402	1	**Tlemcen** - Algeria
755	397.3	20	**Kuopio** - Finland
—	397.3	130	**Timisoara I** - Rum.
—	397.3	135	**Lisboa II** - Portugal
—	397.3	200	**Königslutter (D.funk)** - G.
—	397.3	20	**Ravensburg (D.funk)** - G.
764	392.6	150	**Sottens** - Switzerl.
—	392.6	150/300	**Baghdad** - Iraq
—	392.6	10	**Odessa** - USSR
773	388.1	150	**Stockholm** - Sweden
—	388.1	2	**Malmberget** - Sw.
—	388.1	20	**Valencia (RNE)**, Sp.
—	388.1	50	**Cairo I** - Egypt
—	388.1	1	**Salzburg I** - Aust.
—	388.1	0.1/0.05	**6 low power** - Aust.
777	387	100	**Zahedan** - Iran
782	383.6	250	**Deutschlands.** - G.
—	383.6	100	**R. Clube Portuguese**
—	383.6	100	**Kiev II** - USSR
—	383.6	2	**Vatican Radio**
785	382	5	**Aden** - Aden
—	382	30	**Damascus** - Syria
791	379.2	100	**Limoges I** - France
—	379.2	50	**Thessalinoki I** - Gr.
800	375	100	**München (BR)** - G.
—	375	100	**Leningrad II**, USSR
—	375	5	**R. Sevilla** - Spain
—	375	100	**Amman** - Jordan
809	371	100	**Burghead** - Gt. Br.
809	371	5	**Redmoss** - Gt. Br.
—	371	2	**Dumfries** - Gt. Br.
—	371	100	**Westerglen** - Gt. Br.
—	370.8	135	**Skopje** - Yugosl.
—	370.8	20	**R. Madrid** - Spain
—	370.8	10	**Moscow II** - USSR
818	366.7	10	**Trieste I** - Italy
—	366.7	450	**Batra II** - Egypt
—	366.7	300	**Warszawa II** - Pol.
—	367	1	**Casablanca I** - Mor.
—	366.8	300	**Vallees-Andorre** -
827	363	100	**Sofia I** - Bulgaria
—	363	5	**Tetuan** - Morocco
—	363	1	**Oujda** - Morocco
—	363	40	**Freiburg (SWF)** - G.
—	363	0.5/1.5	**3 low p. (SWF)** - G.
—	363	3	**Kaisersl. (SWF)** - G.

kc/s	Metres	kW	Stations
827	363	3	**Sigmaringen** - G.
—	363	10	**R. Barcelona** - Spain
—	363	20	**Moscow III** - USSR
836	359	10	**Ylivieska** - Finland
—	359	150	**Nancy I** - France
—	359	2	**Huelva (RNE)** - Sp.
—	359	100	**Beyrouth I** - Leb.
—	359	20	**Kharkov** - USSR
845	355	150	**Roma II** - Italy
—	355	1	**Jerusalem** - Israel
850	352.9	0.025	**Adana** - Turkey
—	352.9	2	**R. Huelva** - Spain
854	351.3	150	**Bucuresti I** - Rum.
—	351.3	15	**R. Madrid EAJ2**
—	351	100	**Berlin (RIAS)** - G.
—	351	0.05	**Setif** - Algeria
863	348	150	**Paris I** - France
—	348	100	**Erivan** - USSR
—	347.5	10	**Damascus** - Syria
872	344	150	**Frankfurt AFN** - G.
—	344	30	**Petöfi II** - Hung.
—	344	30	**R. Zaragoza** - Sp.
—	344	150	**Moscow III** - USSR
881	340.5	20	**Titograd** - Yugosl.
—	340.5	20	**Stavropol** - USSR
—	340.5	100	**Berlin (DDR)** - G.
—	341	8	**Penmon** - Gt. Br.
—	341	5	**Towyn** - Gt. Br.
—	341	2	**Wrexham** - Gt. Br.
—	341	100	**Washford** - Gt. Br.
—	341	10	**Sanaa** - Yemen
890	337.1	200	**Alger II** - Algeria
—	337.1	15	**Linz I** - Austria
—	337.1	20	**Bergen I** - Norway
—	337.1	20	**Kristiansand** - No.
—	337.1	20	**Tröndelag** - Norway
—	337.1	50	**Uzjgorod** - USSR
—	337	15	**R. Gredos** - Spain
895	335	50	**R. Teheran** - Iran
899	333.7	150	**Milano I** - Italy
908	330	140	**Brookm. Park**, Gr.B
—	330	200	**R. Baghdad** - Iraq
—	330	7	**Miercurea** - Ruman.
912	328.9	20	**Reichenbach** - G.
915	326	2	**Paphos** - Cyprus
917	327.2	1	**Rabat I** - Morocco
—	327.2	50	**Makhachkala**, USSR
—	327.2	135	**Ljubljana I** - Yugos.
920	326	1	**R. Sanandaj** - Iran
926	324	150	**Brussels II** - Belg.
—	324	10	**Nis** - Yugoslavia
—	324	10	**Cairo VI** - Egypt
930	323	3.5	**Aden** - Aden
935	321	27	**Rabat** - Morocco
—	321	100	**Agadir** - Morocco
—	321	300	**Lvov** - USSR
—	321	10	**Berlin (AFN)** - G.
944	318	100	**Toulouse I** - France
953	314.6	20	**R. Intercont.** - Sp.
—	314.6	30	**Aleppo** - Syria
—	314.6	100/15	**Praha** - Czechoslov.
962	312	100	**Turku I** - Finland
—	312	10	**Paris IV** - France
—	312	100	**Tunis II** - Tunisia
—	312	5	**Oviedo (RNE)** - Sp.
963	311.6	2	**Istanbul** - Turkey
971	309	5	**Göttingen (NDR)** -
—	309	100	**Hamburg (NDR)** -
971	309	100	**Langenberg (WDR)**
—	309	150	**Smolensk** - USSR
—	309	1	**Marrakech** - Mor.
980	306.1	200	**Alger I** - Algeria
—	306.1	5	**Assiout** - Egypt
—	306.1	2	**Trieste A** - Italy
—	306.1	150	**Göteborg** - Sweden
985	302	100	**Kermanshah** - Iran
987	303	8	**R. Málaga** - Spain
989	303.3	300/200	**Berlin (RIAS)** - G.
—	303.3	10	**Beyrouth** - Lebanon
—	303	50	**Madrid (RNE)** - Sp.
998	300.6	10	**Heidelberg (SDR)** -
—	300.6	0.2	**Buchen (SDR)** - G.
—	300.6	140	**R. Andorra**
—	300.6	150	**Kishinjov** - USSR
1000	300	0.2	**R. Rezaieh** - Iran
1007	299.0	6	**Malaga (RNE)** - Sp.
1007	298	120	**Hilversum II** - Holl.
1007	298	50	**Corfu** - Greece
1016	295	20	**Baku** - USSR
1016	295	120	**Rheinsender (SWF)**
—	295	1	**Tanger** - Morocco
1025	292.7	100	**Dobl** - Austria
—	292.7	100	**Kronstorf** - Austria
—	292.7	10	**Lauterach II** - Aust.
—	292.7	5	**Mariapfarr II** - Aust.
—	292.7	0.05	**3 low power** - Austr.
—	292.7	0.5	**Haifa** - Israel
—	292.7	5	**R. S. Sebastian** - Sp.
—	292.7	1	**2 low power** - Mor.
1033	290.4	2	**Izmir** - Turkey
1034	290.2	0.25	**2 low p. (AFN)** - G.
—	290.1	20	**Milano II** - Italy
—	290.1	25	**Venezia II** - Italy
—	290.1	10	**Genova II** - Italy
—	290.1	5	**San Remo II** - Italy
—	290.1	5	**Pescara II** - Italy
—	290.1	25	**Napoli II** - Italy
—	290.1	100	**Tallinn I** - USSR
—	290.1	25	**R Clube Portuguese**
1043	287.6	5	**Thessaloniki** - Gr.
—	287.6	240	**Dresden (DDR)** - G.
—	287	25	**Sebaa-Aioun** - Mor.
—	287	100	**Tbilisi** - USSR
1052	285.3	0.05	**2 low power** - Aust.
—	285.3	20	**Tetuan** - Morocco
—	285.3	2	**Barnstaple** - Gt. Br.
—	285.3	2	**Leon (EOP25)** - Sp.
—	285.3	120	**Start Point** - Gt. Br.
—	285.3	50	**Iasi** - Rumania
—	285.3	50	**R. Tripoli** - Libya
—	285.1	20	**Suhl (DDR)** - G.
1060	285	1	**R. Shiraz** - Iran
1061	283	25	**Norte II** - Portugal
—	283	60	**Kalundborg II**, Den.
—	283	20	**Cagliari I** - Italy
—	283	1	**Livorno I** - Italy
1063	282.2	2	**Ankara** - Turkey
1070	280	100	**Paris II** - France
—	280	20	**Dnjepropetr** - USSR
1079	278	5	**Minia** - Egypt
—	278	5	**Luxor** - Egypt
—	278	2	**Bremerhafen** - G.
—	278	60	**Katowice** - Poland
—	278	1	**Souk Ahras** - Algeria
—	278	20	**Plauen (DDR)** - G.
—	278	0.2/2	**6 low power** - Spain
—	278	5	**Voz de Cataluna**, Sp.
—	278	5	**Voz de Levante** - Sp.
—	278	5	**La Voz de Vigo** - Sp.
—	278	5	**Voz de Asturias** - Sp.
—	278	5	**Voz de Navarra** - Sp.
1088	276	150	**Droitwich** - Gt. Br.
—	276	7.5	**Postwick** - Gt. Br.
—	276	50	**Tirana** - Albania
1090	275	1	**R. Kerman** - Iran
1094	274	2	**R. Panades** - Spain
1097	273.5	150	**Bratislava** - Czecho.
—	273.5	1/2	**9 low power** - Spain
—	273.5	1	**Haifa** - Israel
1100	272	1	**R. Mashhad** - Iran
1106	271.2	100	**Stuttgart (AFN)** - G.
—	271.2	0.04/2	**19 low power** - Spain
—	271.2	100	**Vilnius II** - USSR
1115	269.1	50	**Bologna II** - Italy
—	269.1	5	**Messina II** - Italy
—	269.1	2	**Trieste II** - Italy
—	269.1	1	**Aosta II** - Italy
—	269.1	40	**Bari II** - Italy
—	269.1	10	**Pisa II** - Italy
—	269.1	0.04/1	**9 low power** - No.
—	269.1	50	**Moscow I** - USSR
—	269	10	**Tanger** - Morocco
1120	267	0.3	**R. Cazorla** - Spain
1124	266.9	5	**Barcelona** - Spain
—	266.9	10	**Bruxelles IV** - Belg.
—	266.9	5	**Varna** - Bulgaria
—	266.9	0.1/0.5	**13 low power** - Aust.
—	266.9	20	**Leningrad III** - USSR
1130	265	10/100	**R. Kuwait** - Kuwait
1133	264.8	5	**Bilbao (EAJ28)** - Sp.
—	264.8	135	**Zagreb** - Yugoslavia
—	264.8	15	**Rijeka** - Yugoslavia
—	264.8	50	**Hvar** - Yugoslavia
1133	264.8	—	**Berlin (DDR)** - G.
—	264.8	2	**Adana** - Turkey
1142	262.7	20	**Constantine** - Alg.
—	262.7	5	**R. Toledo** - Spain
—	262.7	40	**Oran** - Algeria
—	262.7	0.05	**6 low power** - Aust.
—	262.7	0.25	**3 low power (AFN)**
—	262.7	5	**Bremerhaven (AFN)**
—	262.7	1	**Florina** - Greece
—	262.7	5	**Sohag** - Egypt
—	262.7	20	**Moscow I** - USSR
—	262.7	1/2	**9 low power** - Spain
1151	261	2	**Scarborough** - Gt.B.
—	261	100	**Stagshaw** - Gt. Br.
—	261	1	**Marrakech** - Mor.
—	260.9	50	**Cluij** - Rum.
1160	259	150	**Strasbourg I** - Fr.
1165	257.5	2	**Kars** - Turkey
1169	256.6	10	**Porto** - Port.
—	256.6	6	**Koper** - Yugoslavia
—	256.6	5	**Ulm (SDR)** - G.
—	256.6	10	**Heilbronn (SDR)**-G.
—	256.6	10	**Thessaloniki** - Gr.
—	256.6	150	**Kiev** - USSR
—	256.6	1	**Jerusalem** - Israel
1178	254.7	100	**Hörby** - Sweden
—	254.7	10	**Assouan** - Egypt
—	254.7	2	**Cuenca (RNE)** - Sp.
—	254.7	10	**BBC** - Malta
1187	252.7	1	**Casablanca II** - Mor.
—	252.7	2/0.1	**28 low power** - Spain
—	252.7	135	**Szolnoc I** - Hungary
1196	251	150	**Munich (VOA)** - G.
1205	249	100	**Bordeaux I** - F.
—	249	60	**Krakow** - Poland
—	249	60	**Rzescow** - Poland
—	249	10	**Haifa** - Israel
—	249	1	**Alcira (EOP56)** - Sp.
1214	247	50	**Brookmans Park** -
—	247	20	**Burghead** - Gt. Br.
—	247	10	**Lisnagarvey** - Gt.Br.
—	247	50	**Moorside Edge** -
—	247	50	**Westerglen** - Gt. Br.
—	247	2/0.25	**5 low power** - Gt. Br.
1223	245.3	20	**La Voz de Madrid**
—	245.3	20	**Stara Zagora** - Bul.
—	245.3	1.3	**R. Alcoy** - Sp.
—	245.3	100	**Falun** - Sweden
1232	243.5	50	**Tanger** - Morocco
—	243.5	100	**Bratislava** - Czecho.
—	243.5	150	**Moscow III** - USSR
1241	242	2	**Gaziantep** - Turkey
—	242	25	**Vaasa** - Finland
—	242	20	**Lille II** - France
—	242	20	**Lyon II** - France
—	242	20	**Marseille II** - France
—	242	20	**Nancy II** - France
—	242	20	**Nice III** - France
—	242	20	**Brest I** - France
—	242	24	**Rennes II** - France
—	242	10	**Aden (FBS)**
1241	241.7	50	**Kiev** - USSR
1248	240	1.2	**Tenerife** - C. Isl.
1250	240	5	**Dublin, Cork** - Irel.
—	240	0.01	**AFRS** - Turkey
—	240	135	**Balatonszab.**, Hung.
—	240	5	**Barcelona (EFJ)** Sp.
—	240	2/0.2	**31 low power** - Spain
1258	238	0.35	**R. Asturias** - Spain
1259	238.3	150	**Courier (VOA)** - Gr.
—	238.3	5	**R. Valencia** - Sp.
—	238.3	20	**Zielona Gora** - Pol.
—	238.3	50	**Wroclaw** - Poland
1268	236.6	100	**Novi Sad** - Yugosl.
—	236.6	5	**R. Asturias** - Spain
1277	234.9	10	**Alexandria** - Egypt
—	234.9	100	**Strasbourg II** - F.
1279	234	1/2	**2 low power** - Spain
1286	233	100	**CS I** - Czechoslov.
—	233	2	**Lisboa** - Port.
1295	231.7	2	**R. Coruña** - Spain
—	231.7	0.25	**Rabat** - Morocco
—	231.7	150	**Crowbor.** - Gt. Br.
—	231.7	2	**Antalya** - Turkey
1304	230	20	**Constantine II** - Alg.
—	230	40	**Oran II** - Algeria
—	230	0.25/1	**7 low p. AFN** - G.

kc/s	Metres	kW	Stations
1304	230	80	**Szczecin** - Poland
—	230	30	**Gdansk** - **Poland**
—	230	0.2	**3 low power** - Spain
—	230	0.6	**Tenerife** - C. Isl.
1313	228.5	100	**Stavanger** - No.
—	228.5	5	**Las Palmas** - C. Isl.
—	228.5	0.1/0.05	**13 low power** - Aust.
—	228.5	20	**Athens (FBS)** - Gr.
—	228.5	1.5	**R. Miramar** - Spain
—	228	2	**Constanza** - Rum.
1322	227	1	**Safi** - Morocco
—	226.9	150	**Leipzig (DDR)** - G.
—	226.9	0.4	**R. Ribatejo** - Port.
—	226.9	1/2	**13 low power** - Spain
1325	226.4	100	**R. Tehran** - Iran
1331	225.4	1/2	**4 low power** - Italy
—	225.4	80	**Roma I** - Italy
—	225.4	50	**Genova I** - Italy
—	225.4	25	**Bologna I** - Italy
—	225.4	25	**Pescara I** - Italy
—	225.4	20	**Bari I** - Italy
—	225.4	12	**Palermo I** - Italy
—	225.4	2	**R. Salamanca** - Sp.
—	225.4	20	**Kothla-Järve**, USSR
1336	226.6	1.5	**Haifa** - Israel
1340	223.8	25	**Nyiregyháza**, Hung.
—	223.8	25	**Szombathely**, Hung.
—	223.8	15	**Pécs** - Hungary
—	223.8	100	**Lisnagarvey** - G. Br.
—	223.8	0.25	**Londonderry** - G.Br.
1345	223.2	10	**R. Kuwait** - Kuwait
1349	223.4	2	**Murcia (EOP12)**, Sp.
—	222.4	10	**Nantes I** - France
—	222.4	20	**Bordeaux II** - Fr.
—	222.4	20	**Limoges II** - France
—	222.4	20	**Grenoble I** - France
—	222.4	20	**Toulouse II** - France
—	222.4	0.2	**Korça** - Albania
—	222.4	0.4	**2 low power** - Hung.
—	222.4	20	**Valmiera** - USSR
—	222.4	20	**Kuldiga** - USSR
—	224.4	20	**Madona** - USSR
1350	222.2	20	**Baghdad** - Iraq
1355	221.3	1	**Kavalla** - Greece
1358	221	0.1/1	**2 low power** - Port.
—	221	20	**Bremen** - Germany
—	221	1	**Tirana** - Albania
—	221	0.09/2	**17 low power** - Spain
—	221	0.5	**Haifa** - Israel
—	220.9	50	**Berlin (DDR)** - G.
1367	219.5	0.1/2	**10 low power** - Italy
—	219.5	25	**Venezia III** - Italy
—	219.5	12	**Napoli III** - Italy
—	219.5	10	**Milano III** - Italy
—	219.5	10	**Genova III** - Italy
—	219.5	5	**Roma III** - Italy
—	219.5	5	**Torino III** - Italy
—	219.5	2	**R Antequera** - Spain
—	219.5	0.5	**4 low power** - Switz.
—	219.8	50	**Lódz II** - Poland
1367	219.8	30	**Bialystok** - Poland
—	219.8	30	**Lublin** - Poland
—	219.5	10	**Porto** - Portugal
1375	218	2	**R. Zamora** - Spain
1376	218	150	**Lille I** - France
1385	217	50	**Athens II** - Greece
—	217	0.25/2	**18 low power** - Spain
—	217	5	**V. de Guipuzcoa**, Sp.
—	217	150	**Kaunas** - USSR
—	217	5	**Voz de Gran.** - Sp.
—	217	5	**R. Bajadoz** - Spain
—	217	5	**R. Maresma** - Spain
1390	215.8	5	**R. Badajoz** - Spain
—	215.8	100	**R. Ahwaz** - Iran
1394	215	1	**Tripoli (FBS)** - Lib.
—	215.2	25	**Graz** - Austria
—	215.2	0.05/0.2	**4 low power** - Aust.
—	215.2	0.25	**Bitburg (AFN)** - G.
—	215.2	0.25/0.15	**19 low power** - Sw.
—	215.2	1	**Angra** - Azores
—	215.2	2	**R. Almeria** - Spain
1400	214	0.01	**2 low power** - Icel.
1403	213.8	0.7/2	**2 low power** - Spain
—	213.8	10	**Montpellier I** - F.
—	213.8	20	**Rouen** - France
—	213.8	20	**Nice II** - France
—	213.8	20	**Brest II** - France
1403	213.8	20	**Cl. Ferrand** - France
—	213.8	5	**Comotini** - Gr.
—	213.8	20	**Pau** - France
—	213.8	20	**Tartu** - USSR
1412	212.4	3	**B. Mergentheim** - G.
—	212.5	2	**2 low power** - Sp.
—	212	6	**Maribor** - Yugosl.
—	212	2	**Osijek** - Yugosl.
—	212	20	**Gospic** - Yugoslavia
—	212	2	**Helsinki II** - Finl.
—	212	0.4	**Turku II** - Finland
—	212	20	**Pristina** - Yugosl.
—	212	0.4	**Club Tenerife** - C.Is.
—	212	0.02	**2 low power** - Icel.
1420	211	1	**R. Almeria** - Spain
1421	211.2	40	**Alger III** - Algeria
—	211.1	100	**R. Saarbrücken** - G.
—	211.1	1	**Tampere** - Finland
—	211.1	10	**Riga** - USSR
1425	221.1	7.5	**Nicosia** - Cyprus
—	221.1	1	**R. Isfahan** - Iran
—	221.1	1	**Malta (FBS)**
1428	210.5	2	**Baia Mare** - Rum.
1430	210	10	**Copenhagen II**, Den.
—	210	—	**Berlin (DDR)** - Ger.
—	210	5	**R. Mallorca** - Spain
—	210	70	**Skive** - Denmark
1439	208	350	**Luxembourg II**
1448	207.2	20	**Torino II** - Italy
—	207.2	12	**Palermo II** - Italy
—	207.2	5	**Ancona II** - Italy
—	207.2	5	**Catania II** - Italy
—	207.2	5	**Firenze II** - Italy
—	207.2	5	**Sassari II** - Italy
—	207.2	0.25/2	**27 low power** - Italy
—	207.2	3	**Pyrgos** - Greece
—	207.2	0.2/2	**5 low power** - Spain
—	207.2	0.15/2	**12 low power** - Sw.
—	207.2	1	**Coimbra** - Port.
1450	207	2	**R. Jaen** - Spain
1457	206	0.05	**3 low power** - Aust.
—	206	2	**Redruth** - Gt. Br.
—	206	20	**Clevedon** - Gt. Br.
—	206	10	**Bartley** - Gt. Br.
—	206	2	**Brighton** - Gt. Br.
—	206	1	**Folkestone** - Gt. Br.
—	206	2	**Bexhill** - Gt. Br.
—	205.9	20	**Craiova** - Rumania
1462	205	1	**R. Gorgan** - Iran
1466	205	400	**Monte Carlo** - Mon.
—	204.6	0.25/1	**6 low power** - Nor.
1475	203.4	2	**2 low power** - Spain
—	203	150	**Wien I** - Austria
1480	202.7	0.04/2	**11 low power** - Spain
—	202.7	20	**R. Gredos** - Spain
1484	202.2	0.2	**St. Pölten** - Aust.
—	202.2	5	**R. Atlantico** - C. Isl.
—	202.2	2	**Copenhagen I** - Den.
—	202.2	0.25	**Alborg** - Denmark
1484	202.2	2	**Tønder** - Denmark
—	202.2	0.25	**Casablanca** - Mor.
—	202.2	1	**Pietarsaari** - Finl.
—	202.2	1	**Pori** - Finland
—	202.2	0.2	**Tammisaari** - Finl.
—	202.2	0.05/1	**8 low power** - F.
—	202.2	0.5/1	**R. Gibraltar**
—	202.2	2	**Brasov** - Rumania
—	202.2	0.1	**Portalegre** - Port.
—	202.2	2	**Barrow** - Gt. Br.
—	202.2	2	**Ramsgate** - Gt. Br.
—	202.2	1	**Volos** - Greece
—	202.2	5	**Freies Berlin** - G.
—	202.2	0.2	**16 low power** - G.
—	202.2	0.25	**Keflavik** - Iceland
—	202.2	0.02	**4 low power** - Icel.
—	202.2	2/0.1	**14 low power** - It.
—	202.2	1	**R. Madeira** -
—	202.2	10	**Benghazi** - Libya
—	202.2	0.25	**P. Lyautey** - Mor.
—	202.2	0.25/1	**5 low power** - No.
—	202.2	8	**Lodz** - Poland
—	202.2	1/2	**6 low power** - Pol.
—	202	0.5	**Limassol** - Cyprus
—	202.2	5	**Bruxelles IV (F)** -
—	202.2	0.5	**Bruxelles III (Fl.)** -
—	202.2	0.01	**38 low p.** - Yugosl.
—	202.2	2	**2 low power** - Czech.
1484	202.2	2	**Pavlovo** - Bulgaria
—	202.2	5	**Riga** - USSR
—	202.2	2/1	**25 low power** - Spain
—	202.2	0.35	**Tenerife** - C. Isl.
1487	202.1	2	**R. Rioga** - Spain
—	202.1	3	**R. Lugo** - Spain
1490	201.1	0.8	**R. Alcoy** - Spain
1492	201	2/0.8	**7 low power** - Spain
1493	201	0.2/2	**5 low power** - Spain
—	201	4	**Bayonne** - France
—	201	0.05/1	**10 low power** - Fr.
—	201	5	**Rhodos** - Greece
—	201	0.05	**8 low power** - Aust.
—	201	20	**Gomel** - USSR
1496	201	0.2	**R. Cadiz** - Spain
1500	200	0.25	**AFRS** - Azores
—	200	0.2/0.5	**2 low power** - Spain
1502	200	2	**3 low power** - Spain
—	199.7	0.25	**5 low power (AFN)**, Germany
—	199.7	0.8	**Münster(WDR)** - G.
1510	198.5	0.02	**3 low power** - Icel.
1511	198.4	2	**3 low power** - Spain
—	198.4	20	**Brussels III** - Belg.
—	198.4	0.2	**Patras** - Greece
—	198.4	5	**Chania** - Greece
1520	197.4	1	**CS I** - Czech.
—	197.4	0.02	**Reydarfjördur** - Icel.
—	197.4	0.2/1	**9 low power** - Spain
1529	196.2	0.075	**Porjus** - Sweden
—	196.2	100	**Vatican Radio**
1538	195	300	**Mainflingen** - G.
1545	194.2	0.02	**Stödvarfjördur** - Iceland
1546	194	0.25/1	**13 synchr.** - Gt. Br.
—	194	5	**Seelow (DDR)** - G.
—	194	0.1/0.05	**4 low power** - Aust.
—	194	50	**Baranovitji** - USSR
1554	193.1	60	**Nice I** - France
1562	192.1	1.25	**Amalias** - Greece
—	192.1	1	**Covilha** - Portugal
—	192.1	2/0.06	**14 low power** - Sw.
1570	191.1	10	**Flensburg** - Germ.
—	191.1	5	**Michelet** - Algeria
—	191.1	5	**V. Mediterráneo**, Sp.
—	191.1	20	**Bernburg** - Germ.
—	191.1	0.25	**Heraklion** - Greece
—	191.1	0.004/0.025	**3 AFRS** - Turkey
—	191.1	1	**Santa Maria** - Azores
1578	190.1	2/0.1	**20 low power** - **Italy**
—	190.7	10	**Porto** - Portugal
—	191.1	10	**Frederikstad** - Nor.
—	191.1	1.3	**Nordkapp** - Norway
1580	190	0.25	**AFRS** - Greece
—	190	0.01	**AFRS** - Turkey
1586	189.1	5	**Kiel (NDR)** - G.
—	189.1	5	**Osnabrück (NDR)** - Germany
—	189	5	**Bonn (WDR)** - G.
—	189	3	**Kleve (WDR)** - G.
—	189	40	**Hannover (NDR)** -
—	189	40	**Oldenburg (NDR)** -
1594	188.2	15	**Miskolc** - Hung.
—	188.2	0.4	**Magyaróvár** - Hung.
—	188.2	15	**Balatonszab.**, Hung.
—	188.2	0.6	**Bougie** - Algeria
—	188	2	**Esbjerg** - Denmark
—	188	0.05/1	**4 low power** - France
—	188	7.5	**Hengelo** - Holl.
—	188	7.5	**Hoogezand** - Holl.
—	188	7.5	**Hulsberg** - Holl.
—	188	0.01	**AFRS** - Turkey
—	188	1.6	**AFRS** - Libya
—	188	2	**Ostrava** - Czech.
—	188	1	**2 low power** - Pol.
—	188	10	**Lisboa** - Portugal
—	188	0.1/0.25	**2 AFRS** - Morocco
—	188	0.3	**Funchal** - Madeira
—	188	2/0.1	**8 low power** - It.
—	188	0.2/0.075	**7 low power** - Sw.
—	188	0.05	**3 low power** - Aust.
—	188	1/0.03	**4 low p.** - Yugosl.
1602	187	20/40	**Nürnberg I (BR)** -
—	187	20	**Land/Isar (BR)** - G.
—	187	20	**Kirchheim (BR)** - G.
—	187	1	**3 low power (BR)** -
1607	186	0.9	**R. Tortosa** - Spain

SHORT WAVE STATIONS OF THE WORLD

Moscow frequencies are omitted from the list as they are changed very often. All the Moscow frequencies are shown in the USSR-text. – *Standard Frequency Station. **Time Signal Station. Br.=Brazil, Cl.=Cultura, Col.=Colombia, Czecho.=Czechoslovakia, Ger.=Germany, Guat.=Guatemala, Hon.=Honduras, Isl.=Island, Venez.=Venezuela.

kc	m	kW	Call	Stations & countries	Rem.
2246	133.6	8		St. Denis, Reunion	
2326	129.5	20		Paradys, So. Africa	
2330	128.7	1	YDI	Djember, Indonesia	
	128.7	1	YDM6	Sibolga, Indonesia	
2340	128.4		YVPL	R. Nueva Esparta, Venezuela	
	128.4	0.1	TGRW	S. Cruz Barillas, Guatemala	
	128.4			Fukien, China	
2346	128.2	0.5	ZYV38	R. Educ. Uberlandia, Br.	
	128.2	20		Paradys, So. Africa	
2350	127.6	1	YDW	Pontianak, Indonesia	
	127.6	1	YDJ3	Jogjakarta, Indonesia	
	127.6	1	ZYB	R.dif. Itacoatiara, Brazil	
	127.6	1	TGSC	Voz Candelaria, Guat.	
	127.6			Shantung, China	
2360	127.1	1	YVQG	R. Carupano, Venezuela	
	127.1	0.5	TGBA	R. Maya Barillas, Guat.	
	127.1	0.25		R.dif. Parintins, Brazil	
2370	126.6	1	YDI3	Surabaja, Indonesia	
	126.6	0.25		R.Cl. Fluminense, Brazil	
	126.6		YVQP	R. Puerto La Cruz, Venezuela	
2376	126.3	20		Paradys, So. Africa	
2380	126.0	0.35	XESE	Mexico City, Mexico	
	126.0	0.25		R.Educ. Limeira, Brazil	
2390	125.5	1	YDN	Kotaradja, Indonesia	
	125.5	1	YDA6	Tjirebon, Indonesia	
	125.5	0.5	ZYV71	R. Mundo Melhor, Brazil	
	125.5	0.5		R. Cult. Monte Alto, Brazil	
2400	125.0	0.1		R. Tapuyo, Brazil	
	125.0	0.5		R.dif. Amparo, Brazil	
2410	124.1	1		R. Sirena, Brazil	
	124.1	0.25	4VO	R. Lumière, Haiti	
2420	123.9	0.25	YDA2	Bandung, Indonesia	
	123.9	1	YDU7	Denpassar, Indonesia	
	123.9	0.5	ZYW32	R. Carajá (de) Anapolis, Br.	
	123.9	0.5		R. São Carlos, Brazil	
2425	124.6	2.5		Gwelo, Rhodesia	
2430	123.5	1	YDK2	Palembang, Indonesia	
	123.5	0.25		Dif. Rio Bonito, Brazil	
2440	122.9	1	YVLG	R. Girardot, Venezuela	
	122.9	1	YDG2	Surakarta, Indonesia	
2450	122.5	0.5	ZYR231	Cultura de Aracatuba, Br.	
	122.5	0.25	4VSO	R.St. 4VEH, Haiti	
	122.5		YVOX	R. Los Llanos, Venezuela	
2460	121.9	1	YDB	Djakarta, Indonesia	
	121.9	1	YDZ	Ternate, Indonesia	
	121.9	0.5	ZYR99	R. Cacique, Brazil	
2470	121.5	0.3	YVNI	R. Carora, Venezuela	
2475	121.2			Chekiang, China	
2480	121.0	1		R. Braganca, Brazil	
	120.9	1	YDL2	Padang, Indonesia	
	120.9		YVPD	La Voz de Avila, Venezuela	
2485	120.7	0.2	HCRO1	R. Otavalo, Ecuador	
2490	120.5	1	YDH	Semarang, Indonesia	
	120.5	0.3	YDQ4	Makassar, Indonesia	
*2500	120	0.5	MSF	Teddington, Gt. Britain	
*	120	1	WWV	Lanham, USA	
*	120	2	JJY	Tokyo, Japan	
*	120	1	OMA	Praha, Czechoslovakia	
*2500	120	0.3	ZLFS	Lower Hutt, New Zealand	
*	120	0.25	FFH	Bagneux, France	
2510	119.5	10	HLK50	Seoul, Korea	
2850	105.3			Pyongyang, Korea	
2910	101.0	10		Tokyo (FEN), Japan	
*3170	94.06	8	OLB5	Praha, Czechoslovakia	
3200	93.75			Em. Reg. do Norte, Mocamb.	
3202	93.69	2		Bangkok, Thailand	
3204	93.64	5		Ibadan (NBC), Nigeria	
3205	93.60	10	YDA	Bandung, Indonesia	
	93.60	10		AIR Lucknow, India	
3210	93.44			Quelimane, Mocambique	
3214	93.34	1	YDS	Menado, Indonesia	
3215	93.30	3.5		Taipei (BCC), Taiwan	
	93.30	0.25	HCLP3	Voz El Oro, Ecuador	
	93.30	7.5		R.Clube de Mozambique	
3222	93.10	100		Lome, Togo	
	93.10	30		R. Mauritania, Mauritania	
3223	93.09	2.5		AIR, Simla, India	
3225	93.05	10		ELWA, Liberia	
	93.05	15/120		Peking, China	
3230	93.00	2	OAX2C	R. Trujillo, Peru	
	93.00	0.4	OBX7D	R. El Sol, Peru	
3230	93.00	10	VRH8	Suva, Fiji Isl.	
	93.00	20		Taipei (BCC), Taiwan	
3232	92.82	4		Tananarive, Malagasy Rep.	
	92.74	10		AIR, Gauhati, India	
3240	92.59	1	OBX4U	R. America, Peru	
	92.59	0.5	ELHC	R. Bolahun, Liberia	
	92.59	0.2	HCJC1	R. Atuntaqui, Ecuador	
	92.59	50		Baghdad, Iraq	
3241	92.56	10	YDR3	Ambon, Indonesia	
3245	92.45	0.25	HCLM3	Voz de Pasaje, Ecuador	
3250	92.31	10	HJGO	R. Sutatenza, Colombia	
	92.31	10	YDO	Bandjarmasin, Indonesia	
	92.31	0.4	OAZ4G	R. La Oroya, Peru	
3251	92.28	5		Dar-es-Salaam, Tanganyika	
	92.28	20		Paradys, So. Africa	
3255	92.15		YVRZ	R. Nirgua, Venezuela	
	92.15	0.5	YVQL	La Voz del Tigre, Venezuela	
	92.15	0.3		Beira, Mozambique	
	92.15	0.5	ZYN62	R.Clube de Marilia, Brazil	
	92.15	10	ELBC	Liberian Br. Corp, Liberia	
3259	92.05	5	YDV	Kupang, Indonesia	
3260	92.02			Kweichow, China	
	92.02	5/100		R.Cl. de Mozambique	
	92.02	4		R. Niger, Niger	
3264	91.90	4		R. Congo, Congo	
3265	91.87	0.25	ZK6	R. Rarotonga, Cook Isl.	
	91.87	2	ZFY	R. Demarara, Br. Guiana	
	91.87	1	HIRM	R. Sol, Dominican Rep.	
	91.87	4	ZYR92	R. Ribeirão Preto, Brazil	
	91.87	1	ZYK21	R. Tamandaré, Brazil	
3268	91.78	1		R. Timor, Timor	
	91.78	2		AIR, Ranchi, India	
3275	91.60	1	YVMC	R. Mara, Venezuela	
	91.60	0.2	HCVU2	Voz Urdaneta, Ecuador	
	91.60	1	ZYR31	Bauru R.Clube, Brazil	
3277	91.55	1	YDD	Djakarta, Indonesia	
	91.55			R. Kashmir, India	
	91.55	1		Port Vila, New Hebrides	
3280	91.40	5		Grenada, Windw. Isl.	
	91.40	1	OBX1E	R. Chulucanas, Peru	
3285	91.32	7.5	HI7SD	R. Santo Domingo, Dom. R.	
	91.32	1	ZYR89	R. Aparecida, Brazil	
	93.32	1		Emis. Educ. Rural, Brazil	
	91.32	1	YVLE	R. Puerto Cabello, Venez.	
3286	91.26	0.3	YDG	Madiun, Indonesia	
3288	91.24	4		Tananarive, Malagasy R.	
3290	91.90	25		R. Nacional, Colombia	
	91.90	15/120		Peking, China	
3295	91.00	1	YDY	Samarinda, Indonesia	
	91.00	10/100	VUD	AIR, Delhi, India	
	91.00	2.5		Lusaka, Rhodesia	
	91.00	1		R.Cl. Benguela, Angola	
	91.00	0.7	YVOG	R. Trujillo, Venezuela	
	91.00	10/100	VUB	AIR, Bombay, India	
3300	90.85	5		Belize, Honduras (Br.)	
	90.91			Em. Reg. do Norte, Mocamb.	
	90.85	0.5	OBX4Y	R. Junin, Peru	
	90.88	7.5		R.Clube de Mozambique	
3305	90.77	1	DZCA	NCDA, Philipp.	
	90.77	3	YVKX	La Voz de la Patria, Venez.	
	90.77	1	HIBA	Emis. Unidas, Dominican R.	
	90.77	1	ZYH31	R. Educ. do Cariri, Brazil	
	90.77	0.25/10	VUC	AIR, Calcutta, India	
	90.77	7.5		Benghazi, Libya	
3306	90.73	10		Gwelo, Rhodesia	
3315	90.50	1	YVLI	R. Maracay, Venezuela	
	90.50	4		R. Martinique, Martinique	
	90.50	10		AIR, Bhopal, India	
	90.50	1	ZYV63	R. Itatiaia, Brazil	
	90.46	5		Freetown, Sierra Leone	
3320	90.34	20		Paradys, So. Africa	
3325	90.23	0.6	YVRA	R. Monagas, Venezuela	
	90.23	0.5	ZYJ21	R. Borborema, Brazil	
	90.23	20	HIUA	R. Caribe, Dominican Rep.	
	90.23	1	ZYR220	R.Dif. Guarulhos, Brazil	
3326	90.20	7.5/20		Kaduna (NBC), Nigeria	
**3330	90.09	0.75	CHU	Dominion Observatory, Can.	
	90.09	1	OAX1M	R. Progreso, Peru	
3331	90.06	4		Dzaoudzi, Comores Isl.	
3335	89.95	0.5	ZYR59	R. Pres. Prudente, Brazil	
	89.96	20		Taipei (BCC), Taiwan	

kc	m	kW	Call	Stations & countries	Rem.
3335	89.95	1	ZYE	R. Marajoara, Brazil	
	89.95	0.25	VL9CD	R. Wewak, Papua	
	89.95	2	YVQC	Ecos de Oriñoco, Venezuela	
3339	89.83	0.25		R. Zanzibar, Zanzibar	
3340	89.81	5/8		Kampala, Uganda	
3345	89.68	2		R. Kashmir, India	
	89.68	2	DZB2	Call of Orient, Philipp.	
	89.68	7.5	YVOS	R. Continente, Venezuela	
	89.69	0.5		Fak-Fak, Indonesia	
	89.69	5	YDW2	Pontianak, Indonesia	
	89.69	1	YVLC	R. Libertador, Venezuela	
3346	89.68	10	VRH9	Suva, Fiji Isl.	
	89.68	20		Lusaka, Rhodesia	
3350	89.55	1	OAX5J	R. Independencia, Peru	
3355	89.45	0.15	TGZB	R. Club, Guatemala	
	89.45	1	YDI20	Sumenep, Indonesia	
	89.45	0.25	HIBD	Voz Romana, Dominican R.	
	89.45	1	YVLC	R. Valencia, Venezuela	
	89.45	0.5	ZYV30	R. Uberlandia, Brazil	
	89.42	10		AIR, Hyderabad, India	
	89.42	0.2	HCDR4	R. Miramar, Ecuador	
	89.42	4		R. Noumea, New Caledonia	
	89.42	7.5		AIR, Kurseong, India	
3356	89.40	1	ZND	Lobatsi, Bechuanaland	
3360	89.29	0.5	OAX3D	R. Huânuco, Peru	
	89.29	0.2	TGVN	Voz Nahualá, Guatemala	
3365	89.15	0.5		Kotabaru, Indonesia	
	89.15	0.5	ZYS45	R.Dif. do Parana, Brazil	
	89.15	1	HIAZ	R. Santiago, Dominic. Rep.	
	89.15		YVPM	R. Tovar, Venezuela	
	89.15	1	YDX	Mataram, Indonesia	
	89.15	10/100	VUD	AIR, Delhi, India	
3366	89.12	20		Accra, Ghana	
3370	89.02	20		Paradys, So. Africa	
3375	88.89	1	ZYK28	R. Olinda Pernamb., Brazil	
	88.89	0.6	YVMI	La Voz de la Fé, Venezuela	
3376	88.89	50		Conakry, Guinea	
	88.89	4		Ziguinchor, Senegal	
3380	88.76	10		Ibadan (WNRS), Nigeria	
	88.76	8		St. Denis, Reunion	
	88.76	1	OAX1O	R. Chiclayo, Peru	
3385	88.63	1	YVQI	R. Barcelona, Venezuela	
	88.63	0.5		R. Clube Teresina, Brazil	
	88.63	1	ZYA41	R. Eldorado, Brazil	
	88.63	50		Conakry, Guinea	
	88.63	0.3		Manokwari, Indonesia	
	88.63	0.6	HIDA	R. Hit Musical, Dom. Rep.	
3389	88.6	0.5		Biak, Indonesia	
3390	88.50	15/120		Peking, China	
	88.50	1		Dacca, Pakistan	
	88.50	0.25	OQ2AC	R. Collège, Congo	
	88.50		HCVE4	Voz Esmeraldas, Ecuador	
3395	88.37	1	YDP2	Medan, Indonesia	
	88.37	1		R.Cl. Conquista, Brazil	
	88.37			Em. Cabo Delgado, Mocamb.	
	88.37	1		Sorong, Indonesia	
	88.37	1	YVOJ	R. Universidad, Venezuela	
3396	88.36	20		Gwelo, Rhodesia	
	88.36	10		Kaduna (NBC), Nigeria	
3505	85.59	0.22	HCSG4	Voz del Valle, Ecuador	
3510	85.47	0.2	HCNL2	Voz del Campesino, Ecuador	
3515	85.35	0.2	HCKD5	R. Centro Gualaceo, Ecuador	
3520	85.23	0.2	HCYC4	R. Escuelas Radiales, Ecuad.	
3545	84.63	0.3	HCOT1	R. Saracay, Ecuador	
3570	81.24	0.2	HCHG2	R. Central, Ecuador	
3615	83.00	0.4	HCGS6	R. Sideral, Ecuador	
3620	82.87	0.1	HCEF2	R. El Sagrario, Ecuador	
3630	82.64	0.25	HCOS4	Voz del Carrizal, Ecuador	
3640	82.41	0.5	HCMR1	R. Cayambe, Ecuador	
3680	81.48		HCJT1	R. Tulcan, Ecuador	
3695	81.12		HCIE1	R. Cotacachi, Ecuador	
3704	80.99	1	CR6RD	Nova Lisboa, Angola	
3720	80.65	0.35	HCGB4	R. Nac. Espejo, Ecuador	
3745	80.05	0.2	HCJR6	V. Col. Mera, Ecuador	
3755	79.90		HCBH6	R. Latacunga, Ecuador	
3780	79.30	20		R. Iran, Iran	
3824	78.46	0.1	ZRE41	Maseru, Basutoland	
3830	78.28	15/120		Peking, China	
3835	78.20	0.2	HCWN1	Voz del Triunfo, Ecuador	
3900	76.92			Inner Mongolia, China	
3905	78.63	10/100	VUD	AIR, Delhi, India	
3910	76.73	5	HLK51	Seoul, Korea	
	76.73	1		Tokyo (FEN), Japan	
3915	76.64	15/120		Peking, China	
	76.64	1		Quetta, Pakistan	
	76.64	1		Lahore, Pakistan	
	76.64	10/50		Karachi, Pakistan	

kc	m	kW	Call	Stations & countries	Rem.
3915	76.64	1	YDZ2	Ternate, Indonesia	
3925	76.43	50	JOZ	Tokyo, Japan	
	76.43	10/100	VUD	AIR, Delhi, India	
3935	76.24	5	YDH2	Semarang, Indonesia	
3940	76.15	25	ZBW3	R. Hong Kong	
	76.15	35/100		Okinawa (VOA), Ryukyu Isl.	
3945	76.05	10	YDU2	Denpassar, Indonesia	
	76.05	10	JOZ4/5	Tokyo, Japan	
	76.05	0.5	DXB3	Cotabato, Phil. Isl.	
	76.05	0.25	HCDY4	R. Iris, Ecuador	
3950	75.95	0.3	HCPZ1	R. Rumichaca, Ecuador	
	75.95	0.2	HCLR5	Voz de Alausi, Ecuador	
3952	75.90	15/100		BBC, London, Gt. Britain	
3958	75.78	0.5		Stanley, Falkland Isl.	
3960	75.76	5	CR4AA	R.Cl. Cabo Verde	
	75.76	5	CR7RA	R. Pax, Mozambique	
	75.76	0.5	OAX7O	R. Madre de Dios, Peru	
	75.76	1	CR6RE	Malanje, Angola	
	75.76	1	CR4AC	R. Barlavento, Cape Verde I.	
	75.76	10/100		R. Free Europe, Germany	
	75.76	10	YDL	Padang, Indonesia	
	75.76	0.2	HCJJ2	Ecos del Agro, Ecuador	
3965	75.67	0.35	HCJH1	R. Turismo, Ecuador	
	75.67	50		Monrovia (VOA), Liberia	
	75.67			Taichung (BCC), Taiwan	
3970	75.57	5		Osterloog (NDR), Germany	
	75.57			Inner Mongolia, China	
	75.57	1	CR6SG	R. Clube Huila, Angola	
3975	75.47	15/100		BBC, London, Gt. Britain	
	75.47	1		Club Benguela, Angola	
	75.48	10	YDI2	Surabaja, Indonesia	
	75.47	0.6	HCSN6	R. Sira, Ecuador	
3980	75.38	0.4	HCOF4	Voz de Chone, Ecuador	
	75.38	2.5/5		Enugu (NBC), Nigeria	
	75.38	8/100		Munich (VOA), Germany	
3985	75.28	15/120		Peking, China	
	75.28	0.25		Merauke, Indonesia	
	75.28	1	HCER5	Esc. Radiofonica Pop., Ecua.	
3990	75.19	20/50		R. Liberty, Germany	
	75.19	10/100		R. Free Europe, Germany	
	75.19	0.5	HCJA5	Voz del R. Tarqui, Ecuador	
	75.19	0.25		Dar-es-Salaam, Tanganyika	
	75.19	50		Baghdad, Iraq	
3995	75.09			R. Roma, Italy	
	75.09	10/100		R. Free Europe, Germany	
4000	75.00	0.3	HCAO5	Voz de Tomebamba, Ecuad.	
	75.00			I. Mongolia, China	
	75.00			Bayinor, China	
4008	74.81			Frunze, USSR	
4020	74.63	120/240		Peking, China	
**4025	74.50		GIC24	Hailsham, Gt. Britain	
4035	74.40			Tibet, China	
4040	74.25	50		R. Kabul, Afghanistan	
4055	73.98			Petropavlovsk, USSR	
4060	73.89			Petropavlovsk, USSR	
4070	73.73	25		Ulan Bator, Mongolia	
4080	73.53			Semipalatinsk, USSR	
4090	73.35	10	ELBC	Monrovia, Liberia	
4068	73.75			Inner Mongolia, China	
4092	71.88			Yuzhno-Sakh, USSR	
4100	73.17			Kzyl Orda, USSR	
4220	71.09			Sinkiang, China	
4250	70.59	15/120		Peking, China	
4310	69.61			Chimkent, USSR	
4355	68.89			Nukus, USSR	
4405	68.10			Khabarovsk, USSR	
4425	67.80			Dudinka, USSR	
4430	67.72			Novosibirsk, USSR	
4460	67.18	15/120		Peking, China	
4485	66.89			Petropavlovsk, USSR	
4486	66.88			Ufa, USSR	
4494	66.78	7.5/20		Omdurman, Sudan	
4500	66.67			Sinkiang, China	
	66.67	15/120		Peking, China	
4510	66.52			Andizhan, USSR	
4520	66.37			Khanty Mansiysk, USSR	
4525	66.25			Silingol, China	
4544	66.00			Alma-Ata, USSR	
4560	65.79			Guryev, USSR	
	65.79			Tura, USSR	
	65.77	0.2	VSI8	Grand Turk Isl.	
4570	65.65			Petropavlovsk, USSR	
4600	65.22	5		R. Nepal, Nepal	
4610	65.08			Khabarovsk, USSR	
4640	64.60			Dushambe, USSR	
4665	64.30			Baku, USSR	
4684	64.05			Hanoi, Vietnam (Dem. Rep.)	

kc	m	kW	Call	Stations & countries	Rem.
4710	63.69	50		R. Kabul, Afghanistan	
4725	63.48	1	OAX9D	R. Tropical, Peru	
4730	63.42	0.5	HCAS4	Voz de los Caras, Ecuad.	
4750	63.16	7.5	YDO	Makassar, Indonesia	
	63.16	2	ZYF23	R.Dif. Maranhão, Brazil	
	63.16	0.25	HCBJ2	R. El Mundo, Ecuador	
4755	63.09	1/0.5	ZYY3	R. Brazil, Brazil	
	63.09	0.25	CR4AB	R. Cl. Mindelo, Cape Verde	
	63.09	2.5	HCGJ	Reina de Colombia, Col.	
	63.09	0.2	HCLJ6	Voz de Bolivar, Ecuador	
	63.09	0.5		Bangkok, Thailand	
4756	63.08	10	VRH6	Suva, Fiji, Isl.	
4760	63.03	0.5	YVKY	Emis, Vargas, Venezuela	
	63.03			Dzhambul, USSR	
	63.03	10/100	VUD	AIR, Delhi, India	
4762	63.00	0.25	OCX4W	R. Inca, Peru	
4765	62.95	3	HJEF	R. Dif. Occidente, Col.	
	62.95	1		R. Clube de São Tomé	
	62.96	1	ZYN37	Feira de Santana, Brazil	
4765	62.95	1	HCAJ2	R. dif. del Ecuador, Ecuador	
4770	62.89	0.5	OAX2G	R. Cajamarca, Peru	
	62.89	1	CR6RG	R. Diamang, Angola	
	62.89	0.3	YVNW	Ondas del Caribe, Venezuela	
	62.89			Sinkiang, China	
	62.89	10		ELWA, Liberia	
	62.89	4	HCMX4	R. Cenit, Ecuador	
4775	62.84	5	ZYH29	R. Dragão do Mar, Brazil	
	62.84	5	ZYR81	R. Progreso, Brazil	
	62.84	50		R. Kabul, Afghanistan	
	62.84	0.5	HCEH3	R. El Progreso, Ecuador	
	62.84	1	HRLC	R. Continental, Honduras	
	62.83	10		AIR, Gauhati, India	
	62.82	10		Peshawar, Pakistan	
4777	62.80	30		R. Gabon, Gabon	
4780	62.76	1	YVLA	Voz de Carabobo, Venezuela	
	62.76	2	HCMQ1	R. Atahualpa, Ecuador	
	62.76	1	H.AS	Onda Musical, Dom. Rep.	
	62.76	4		R. Djibouti, Fr. Somaliland	
4783	62.72	0.5		Bangkok, Thailand	
4785	62.70	0.5	ZYM8	R. Ribamar, Brazil	
	62.70	10		Dar-es-Salaam, Tanganyika	
	62.70	10	VRH5	Suva, Fiji, Islands	
	62.70	30		R. Niger, Niger	
	62.70	1	ZYY20	R. Dif. do Guaporé, Brazil	
	62.70	1	CP74	R. Indoamerica, Bolivia	
4788	62.68	2	CR6RY	Novo Redondo, Angola	
4790	62.63	0.5	HRST	R. Primero de Mayo, Hond.	
	62.63	0.5	OAX5X	R. Nazca, Peru	
	62.63	10		R. Malaya, Malaya	
	62.63	5	YVQN	Ondas Porteñas, Venezuela	
	62.63	0.25	HCHA2	R. Quevedenas, Ecuador	
4793	62.60	8		R. Burundi, Burundi	
4795	62.57	2	PRI4	R. Tabajara, Brazil	
	62.57	0.25		R. Zanzibar, Zanzibar	
	62.57	50	XZK2	Rangoon, Burma	
	62.57	1	HJFU	Voz del Comercio, Col.	
4797	62.54	10		R. Somali, Somali	
4800	62.50	10	YVME	Ondas del Lago, Venezuela	
	62.50	0.5	ELHC	R. Bolahun, Liberia	
	62.50	1	CR6RD	Nova Lisboa, Angola	
	62.50	0.2	HCSV5	R. Amazonas, Ecuador	
4804	62.45	5		Kisumu, Kenya	
4805	62.43	5	ZYS8	R. Dif. do Amazonas, Brazil	
	62.42	20	YDB2	Djakarta, Indonesia	
4807	62.41	1		Lahore, Pakistan	
	62.41	4		St. Denis, Reunion	
4808	62.40	0.5	OAX3E	R. Huaráz, Peru	
4810	62.37	1	YVMG	R. Popular, Venezuela	
	62.37			Banmethuot, Vietnam	
	62.37	0.2	HCLS3	R. Coro S. Cecilia, Ecuador	
	62.37			Bangkok, Thailand	
	62.37	20		Paradys, So. Africa	
4815	62.31	1	ZYP33	Petropolis R. Dif., Brazil	
	62.31	0.3	HCFA4	Voz de Manabi, Ecuador	
	62.31	1	ZYH27	R.Icarema de Fortaleza, Br.	
	62.31	4		Ouagadougou, Upper Volta	
	62.31	1	OAX5U	R.Huancavelica, Peru	
4820	62.24	1	YVRC	Voz de Apure, Venezuela	
	62.24	0.5	OAX7K	R. Puno, Peru	
	62.24	10		AIR Bhopal, India	
	62.24	0.2	XEJG	Guadalajara, Mexico	
	62.24	1		R. Gambia, Gambia	
	62.24	22.5		R. Singapore, Singapore	
4825	62.18	0.5	ZYV56	R.Cl. de Varginha, Brazil	
	62.18	0.3	HCET2	R.El Telegrafo, Ecuador	
	62.18	1	HJHC	R. Nariño, Colombia	
	62.18			R. Ashkhabad, USSR	

kc	m	kW	Call	Stations & countries	Rem.
4825	62.18	0.5	ZYE7	Educadora de Parnaiba, Br.	
	62.18	0.3	CP70	R. Grigota, Bolivia	
4828	62.12	15		Lusaka, Rhodesia	
4830	62.11	5	YVOA	Voz del Tachira, Venezuela	
	62.10	0.5	HCJS1	Ondas del Angel, Ecuador	
	62.10	5	HSK4	R. Thailand, Thailand	
4835	62.05		HCAP4	Voz del Valle, Ecuador	
	62.05	0.35	OAX7T	R. Sicuani, Peru	
	62.05	5		R. Sarawak, Sarawak	
	62.05		OAZ4J	R. Ritmo, Peru	
	62.05	1	ZYA	R.dif. Roraima, Brazil	
	62.05	7.5		R. Clube de Mocambique	
	62.05	0.5	ZYV37	R. Soc. Triangulo, Brazil	
	62.05	4		R. Mali, Mali	
4839	61.99	10		R. Bukavu, Congo	
4840	61.98	0.3	YDU	Singaradja, Indonesia	
	61.98	10/100	VUB	AIR, Bombay, India	
	61.98	20		R. Iran, Iran	
	61.98	1	HIFF	Voz Atlantico, Dom. Rep.	
	61.98		YSCB	La Voz del Pacifico, El Salv.	
	61.98	1	YVOI	R. Valera, Venezuela	
	61.98	0.25	VL9BR	R. Rabaul, N. Guinea (Au.)	
4843	61.95	25		R. Congo, Congo	
	61.95	0.2	HCRM3	R. Cultural Machala, Ecuad.	
4845	61.92	0.5	ZYU8	R. Dif. de Teresina, Brazil	
	61.92	1	CP66	R. Centenario, Bolivia	
	61.92	1	HJGF	R. Bucaramanga, Colombia	
	61.92	0.25		Dar-es-Salaam, Tanganyika	
	61.92	1	OAX1X	R. Chira, Peru	
4850	61.86	1	YVMS	R. Universo, Venezuela	
	61.86			Tashkent, USSR	
	61.86	10		Forest Side, Mauritius	
	61.86	0.25	HCCV3	Ond. del Zamora, Ecuador	
	61.86	0.5	OCX4B	R. Callao, Peru	
4852	61.83	0.4		Paramaribo, Surinam	
4855	61.79	30		R. Mauritania, Mauritania	
	61.79	0.35	HCMA1	R. Amazonas, Ecuador	
	61.79	10		Enugu (ENBS), Nigeria	
	61.79	1	HJFN	R. Neiva, Colombia	
	61.79	10	YDK	Palembang, Indonesia	
	61.79	5		Nairobi, Kenya	
	61.79	1	ZYR61	R. Dif. de Taubaté, Brazil	
	61.79	0.25		Nampula, Mozambique	
4859	61.74	7.5		R. Clube de Mozambique	
4860	61.73	1	YVPA	R. Yaracuy, Venezuela	
	61.73	0.25	HCJC3	R. 18 de Nov., Ecuador	
	61.73			R. Kashmir, India	
	61.73	0.25	HIBC	Voz del Progreso, Dom. Rep.	
4865	61.66	1	CSA97	Ponta Delgada, Azores	
	61.66	1		R. Clube de São Tomé	
	61.66	7.5		R. Clube de Mocambique	
	61.66			Quelimane, Mozambique	
	61.66		HCCD1	Luz de America, Ecuador	
	61.66	1	HJFA	Voz de Pereira, Colombia	
	61.66	2.5	PRC5	R. Clube do Para, Brazil	
4869	61.60	1	CR6RN	R. Clube de Angola, Angola	
4870	61.60	7.5		Colombo, Ceylon	
	61.60	0.5	OCX4T	Huancayo, Peru	
	61.60	2	YVKP	R. Tropical, Venezuela	
	61.60	30		R. Dahomey, Dahomey	
4873	61.56			Uralsk, USSR	
4875	61.54	5	ZYZ30	R. Jornal do Brazil, Brazil	
	61.54	0.2	HCMZ6	V. Rio Chimbo, Ecuador	
	61.54	10	YDG3	Surakarta, Indonesia	
4877	61.52			Saigon, Vietnam	
4880	61.48	7.5	YVKF	Ond. Populares, Venezuela	
	61.48		HCWE1	R. Nac. Espejo, Ecuador	
	61.48	7.5		Leopoldville, Congo Rep.	
	61.48	1	OCX4E	R. Once Sesenta, Peru	
	61.48	1	HIJP	R. Comercial, Dom. Rep.	
	61.48	10		AIR, Lucknow, India	
4885	61.45	10		Nairobi, Kenya	
	61.45	5	ZYV50	R. Cultura de Pocos, Brazil	
	61.45	1	ZYC	R. dif. Rio Branco, Brazil	
	61.45	1	OAX5V	R. Villarica, Peru	
4889	61.40	0.5	OAZ4A	R. Tarma, Peru	
4890	61.35	5	YVKB	R.dif. Venezuela, Venezuela	
	61.35	25		Dakar, Senegal	
4895	61.29	20		Paradys, So. Africa	
	61.29	7.5		AIR, Kurseong, India	
	61.29	2	OAZ4T	R. Chanchamayo, Peru	
	61.29	4		R. Martinique, Martinique	
	61.29	2.5	PRF6	R. Baré, Brazil	
	61.29	1	ZYN22	R. Cultura da Bahia, Brazil	
	61.29			Alma Ata, USSR	
4896	61.27			Tyumen, USSR	
4900	61.22	10	YDN2	Kotaradja, Indonesia	

kc	m	kW	Call	Stations & countries	Rem.
4900	61.22	10		Colombo, Ceylon	
	61.22	1	IIJAG	Emisora Atlantico, Colombia	
	61.22	1	YVQE	R. Cumaná, Venezuela	
	61.22	1	YDS	Gorontalo, Indonesia	
4904	61.18	30		R. Tchad, Chad	
4905	61.16	5	ZYZ20	R.Relogio Federal, Brazil	
	61.16	1	CR6RS	Lobito, Angola	
	61.16	0.5	HRQN3	Voz del Atlantico, Honduras	
	61.16	0.45	HCFM6	R.Proclama de Bolivar, Ecua.	
	61.15	100	ETLF	Addis Ababa, Ethiopia	
4909	61.12	5		Dar-es-Salaam, Tanganyika	
4910	61.10	10/50		Rawalpindi, Pakistan	
	61.10	120/240		Peking, China	
	61.10	18		Conakry, Guinea (Rep.)	
	61.10	1	HIN	R. HIN, Dom. R.	
	61.10	0.3	YDM	Bukittinggi, Indonesia	
	61.10	1	YVMK	R. Cabimas, Venezuela	
	61.10	0.3	OAX2K	R. Libertad, Peru	
	61.10	0.3	HCMJ1	R. Gran Colombia, Ecuador	
	61.10	0.1	HCAR1	R. Montufar, Ecuador	
4911	61.08	10		Lusaka, Rhodesia	
4915	61.04	5		Accra, Ghana	
	61.04	1	ZYR60	Cultura de Araraquara, Br.	
	61.04	2	ZYE2	R.dif. de Macapa, Brazil	
	61.04	1		R. Rio S. Francisco, Brazil	
4920	60.98	10	VLM4	Brisbane, Australia	
	60.98	0.2	TGRY	V. San Raymundo, Guat.	
	60.98	7.5	YVKR	R. Caracas, Venezuela	
	60.98	0.2	HCMP2	Voz de la Peninsula, Ecuad.	
	60.98	0.1	HCJX6	R. Cultural Rel., Ecuador	
4923	60.94	0.5	HCQR1	R. Quito, Ecuador	
4925	60.90	7.5		R. Clube de Mozambique	
	60.90	1	ZYV32	R. Industrial, Brazil	
	60.90	1	ZYA6	R. Iracema, Brazil	
	60.90	5	EAJ206	R. Ecuatorial, Sp. Guinea	
4930	60.85	0.25	HCCR1	R. Casa de la Cultura, Ecu.	
	60.85			Batumi, USSR	
	60.85	0.5	YVOT	R. Junin, Venezuela	
	60.85	1	YDX	Tdj. Pinang, Indonesia	
4934	60.80	10		Nairobi, Kenya	
	60.80	0.25	OAX5Q	Abancay, Peru	
4935	60.80	1	ZYI21	R. Poti, Brazil	
4935	60.80	10		Peshawar, Pakistan	
	60.80	1	HJLF	Ondas de Ibaque, Colombia	
4937	60.78	7.5/10		Dacca, Pakistan	
4940	60.73	2	YVMO	R. Occidental, Venezuela	
	60.73	1	HRUS	Voz de Suyapa, Honduras	
	60.73	0.25/10	VUC	AIR, Calcutta, India	
	60.73	10		R. Abidjan, Ivory Coast	
	60.73			Kiev, USSR	
	60.73	0.2	TGRH	Rel. Humanas, Guat.	
	60.73		OAZ4R	R. San Juan, Peru	
	60.73			Cabo Delgado, Mocambique	
	60.73			Quelimane, Mozambique	
	60.73	0.5	OAX6N	R. Misti, Peru	
	60.73	10	HCXZ1	R.dif. Nacional, Ecuador	
4945	60.67	5	HJCW	Emis. Sur. America, Colomb.	
	60.67	10	YDA3	Bandung, Indonesia	
	60.67	1	ZYO25	R. Capixaba, Brazil	
	60.67	0.25	ZYF22	R. Caxias do Sul, Brazil	
	60.67	1	ZYE23	R. Educ. de Braganca, Br.	
	60.67	20		Paradys, So. Africa	
	60.67	10/50		Karachi, Pakistan	
	60.67	0.5	DZB6	Nat. Teachers Coll., Philipp	
	60.60	5		Nairobi, Kenya	
4950	60.60	1	YVMM	R. Coro, Venezuela	
	60.60	4		Dakar, Senegal	
	60.60	5/7.5		R. Sarawak, Sarawak	
4955	60.54	2	PRF7	R. Cultura de Campos, Br.	
	60.54	50	HJCQ	R. Nacional, Colombia	
	60.54	0.25	OAX5S	R. Amauta, Peru	
	60.54	3	CR6RZ	R. Angola, Angola	
4957	60.52			Blagoveshchensk, USSR	
	60.52			Anadyr, USSR	
4958	60.51			Baku, USSR	
4960	60.48	10/100	VUD	AIR, Delhi, India	
	60.48	1	HICN	R. Antillas, Dom. Rep.	
	60.48	1	YVQA	R. Sucre, Venezuela	
	60.48	1	HCPH5	R. Ruta, Ecuador	
	60.48	0.5	OAX1S	R. Lambayeque, Peru	
4962	60.45	10/100	VUD	AIR, Delhi, India	
4965	60.42	2.5		Lusaka, Rhodesia	
	60.42			Sukhumi, USSR	
	60.42	2.5	HJAE	R. Santa Fé, Colombia	
4967	60.25	1/10/50		R. Kuwait, Kuwait	
4970	60.36	10	YVLK	R. Rumbos, Venezuela	
	60.36	5	VQA52	Jesselton, No. Borneo	
4970	60.36	5		R. Mogadiscio, Somali, Rep.	
	60.36	5	HCGH1	R. Tarqui, Ecuador	
4972	60.33	30/4		R. Yaoundé, Cameroon	
4975	60.30	2.5	ZYV9	R. Timbira, Brazil	
	60.30			Nampula, Mozambique	
	60.30			Blagoveshchensk, USSR	
	60.30	1	ZYP27	R. Copacabana, Brazil	
4976	60.29	5/8		Kampala, Uganda	
4977	60.28	0.5		R. Cl. de Cabo Verde	
4980	60.25			Fukien, China	
	60.25		YVOC	Ecos del Torbes, Venez.	
	60.25	10/50		Karachi, Pakistan	
	60.25	0.25	HICK	Ondas del Yaque, Dom. Rep.	
	60.25	0.3	HCJC5	Ondas Azuayas, Ecuador	
4984	60.19	0.2	CR6RB	R. Ecclesia, Angola	
4985	60.18	10		R. Malaya, Malaya	
	60.18	1.5	ZYZ5	Voz do Oeste, Brazil	
	60.18	5	CP75	La Cruz del Sur, Bolivia	
	60.18		HJCV	R. Independencia, Colombia	
4990	60.12	0.04	CZQ3	Victoria, Seychelles	
	60.12	1	HCSJ1	R. Javier, Ecuador	
	60.12	20		Lagos, Nigeria	
	60.12	10		AIR, Hyderabad, India	
	60.12	15	YVMQ	R. Barquisimeto, Venezuela	
	60.12			Hunan, China	
4995	60.06	1	CR6RO	Silva Porto, Angola	
	60.06	1	ZYY2	R. Brazil, Central Brazil	
	60.06	0.5	HRQW	R. Juventud, Hond.Rep.	
	60.06	1	OAZ4C	R. Andina, Peru	
4996	60.05			Magadan, USSR	
*5000	60.00	0.5	MSF	Teddington, Gt. Britain	
*	60.00	20	RWM	Toscow, USSR	
*	60.00	2	WWVH	Puunene, Hawaii	
*	60.00	8	WWV	Lanham, USA	
*	60.00	2	JJY	Tokyo, Japan	
*	60.00		BPV	Peking, China	
*	60.00	2	LOL	Buenos Aires, Argentina	
*	60.00		HBN	Neuchatél, Switzerland	
*	60.00	1	IAM	Rome, Italy	
*	60.00	4	ZUO	Johannesburg, So. Africa	
*	60.00	0.3	IBF	Turin, Italy	
5010	59.88	10		FBS, Singapore	
	59.88	4/30		R. Garoua, Cameroon	
	59.88		YVTE	R. Valles del Tuy, Venez.	
	59.88	0.4	OAX8V	R. Eco, Peru	
	59.88	5		Grenada, Windward Isl.	
	59.88			Kwangsi, China	
5012	59.86			Sukhumi, USSR	
5015	59.82	1		R. Clube do São Tomé	
	59.82	0.5	HCRP1	R. Católica, Ecuador	
	59.82	0.5	OAX7Z	R. Juliaca, Peru	
	59.82	1	PRC8	R. Guanabara, Brazil	
	59.82			Vladivostok, USSR	
	59.82			R.Arkhangelsk, USSR	
	59.82	1	CR6RM	Mocamedes, Angola	
5020	59.76	10	YVKO	R. Nacional, Venezuela	
	59.76	7.5		Colombo, Ceylon	
	59.76	0.15	OAX5R	R. Ayacucho, Peru	
	59.76	1	HJFW	Transm. Caldas, Colombia	
	59.76	4		R. Niger, Niger	
	59.76	0.12	4VGS	R. Indépendence, Haiti	
5024	59.71	1	CR6RH	R. Clube Huila, Angola	
5025	59.70	1	ZYX24	R. Dif. de Aquidauana, Br.	
	59.70	0.2	HCOB5	Ondas Azules, Ecuador	
	59.70	0.3	OAX7Q	R. Quillabamba, Peru	
5026	59.70	5/8		Kampala, Uganda	
5030	59.64	1	HIBB	Voz del Papagayo, Dom. Rep.	
	59.64	0.5		Bangkok, Thailand	
	59.64	7.5	YVKM	R. Continente, Venezuela	
	59.64	0.2	4VGA	Port de Paix, Haiti	
	59.64	7.5	YDP	Medan, Indonesia	
	59.64	0.5	HCPS5	Ondas Canaris, Ecuador	
5033	59.61	1	CR6RW	R. Cl. de Cabinda, Angola	
	59.61	1	CR6RE	R. Cl. de Malanje, Angola	
5035	59.58	0.5	PRI4	R. Esp. Santo, Brazil	
	59.58	30		Bangui, C. African Rep.	
	59.57	1	ZYW22	R. Anhanguera, Brazil	
	59.57		HCCU5	La Voz de Azogues, Ecuador	
5040	59.52			Tbilisi, USSR	
	59.52	50	XZK9	Rangoon, Burma	
	59.52			Fukien, China	
	59.52	1	YVMA	Ecos del Zulia, Venezuela	
	59.52		ZNX20	Bridgetown, Barbados	
5041	59.51	10		Emis. da Guiné, Port. Guinea	
5044	59.48			Pyongyang,Korea(Dem.Rep.)	
5045	59.46	0.25	HCEA5	R. Roxi, Ecuador	
	59.46	1	ZYP23	R. Quitandinha, Brazil	

kc	m	kW	Call	Stations & countries	Rem.
5045	59.46			R. Mundial, Brazil	
	59.46	0.25	ZK5	Rarotonga, Cook Isl.	
5047	59.43	7.5	YDJ	Jogjakarta, Indonesia	
	59.43	4/100		Lomé, Togo	
5050	59.41	20		Dar-es-Salaam, Tanganyika	
	59.41			Petropavlovsk, USSR	
	59.41	5	YVKD	R. Cultura, Venezuela	
	59.41	5	HJDW	Voz de Medellin, Colombia	
	59.41	1	OAX1J	R. Tumbes, Peru	
5052	59.38	1	CR6RF	R. Cl. de Benguela, Angola	
5055	59.36	2	ZYO23	R. Vitoria, Brazil	
	59.35	0.25	HCR11	Centro R.Imbabura, Ecuador	
	59.35			Chita, USSR	
				5060–5950 kc	
5060	59.29	1	CR6RD	Nova Lisboa, Angola	
	59.29	7.5		Aden	
5065	59.23			Petrozavodsk, USSR	
	59.23	10		Colombo, Ceylon	
5067	59.21	25		Ulan Bator, Mongolia	
5075	59.13	25	HJGC	R. Sutátenza, Colombia	
	59.13	120/240		Peking, China	
5090	59.00	0.2	4VAF	Jérémie, Haiti	
	59.00			Palana, USSR	
5095	58.88	50	HJCG	R. Sutátenza, Colombia	
5110	58.71			Khabarovsk, USSR	
5125	58.54	15/120		Peking, China	
5137	58.00	1	CR6RV	R. Clube de Moxico, Angola	
5145	58.31	120/240		Peking, China	
5180	57.90			R. Atlantida, Ecuador	
5200	57.69	0.25	OQ2AC	R. Collège, Congo	
5260	57.03			Alma Ata, USSR	
	57.03			Krasnoyarsk, USSR	
5287	56.75	0.3		Damascus, Syria	
5320	56.40	15/120		Peking, China	
5440	55.15	1	OAX5X	R. Huancavelica, Peru	
5360	55.97			R. Alihuata, Bolivia	
5610	53.48			R. Cochabamba, Bolivia	
5680	52.78	1	OAX1O	R. Chiclayo, Peru	
5700	52.65	0.5	OAX3E	R. Huaraz, Peru	
5710	52.57			R. Ayaviri, Peru	
5740	52.26			Erevan, USSR	
	52.26	0.3	4VCB	La Voix du Sud, Haiti	
5750	52.17			Voz del Minero, Bolivia	
5755	52.15			R. Sumajorko, Bolivia	
5785	51.86			R. Colquiri, Bolivia	
5807	51.67		GAY35	Rugby, Gt. Britain	
5820	51.55			R. Tupas, Katari, Bolivia	
5825	51.50			Syktyvkar, USSR	
5830	51.46	0.1	OCX4R	R. Industrial, Peru	
5860	51.19			R. Nacional, Bolivia	
	51.20	120/240		Peking, China	
5865	51.15			R. Corocoro, Bolivia	
5875	51.05			R. Em. San José, Bolivia	
	51.05	1	HRNL	Voz de Honduras, Honduras	
5880	51.02	120/240		Peking, China	
5900	50.84	1	ZNB	Mafeking, Bechuanaland	
	50.84	100		R. Budapest, Hungary	
5915	50.72	15/240		Peking, China	
5925	50.62			Tashkent, USSR	
5930	50.59			Guryev, USSR	
	50.57	100		Praha, Czechoslovakia	
	50.57			R. Arkhangelsk, USSR	
5933	50.55	10		Elizabethville, Congo Rep.	
5935	50.54	120/240		Peking, China	
				R. Tibet, China	
5940	50.51			Minsk, USSR	
	50.51			Magadan, USSR	
				5950–6200 kc – 49 meter Band	
5950	50.42	120/240		Peking, China	
	50.42	7.5/100		Warsaw, Poland	
	50.42		HCCV5	Quatro Rios, Ecuador	
	50.42	25		R. Sanaa, Yemen	
	50.42			Hanoi, Vietnam (Dem.Rep.)	
	50.42	0.5	OAX4P	R. Huancayo, Peru	
5954	50.39	1	TIQ	R. Casino, Costa Rica	
5955	50.38	100		Allouis, France	
	50.38	1	HJIQ	Voz del Llano, Colombia	
	50.38	0.6	HCDF1	Voz del Norte, Ecuador	
	50.38	100	ETLF	Addis Ababa, Ethiopia	
	50.38	100	DMQ5	D. Welle, Germany	
	50.38	5	TGNA	R. Cultural, Guatemala	
	50.38	0.5	YNRG	R. Zelaya, Nicaragua	
	50.38	0.5		Bangkok, Thailand	
	50.38	1	CR6RE	R. Cl. de Malanje, Angola	
	50.38	0.5		Larissa, Greece	
	50.38	1	CP5	R. Illimani, Bolivia	
	50.38	0.5	CP81	R. Pio XII, Bolivia	

kc	m	kW	Call	Stations & countries	Rem.
5955	50.38	10/100	VUD	AIR, Delhi, India	
	50.38	35/50/100		Tangier (VOA), Morocco	
	50.38	10	ZYR226	R. Gazeta, Brazil	
5960	50.34	0.3	HCTR1	R. Equinoccial, Ecuador	
	50.34	50		Ulan Bator, Mongolia	
	50.34	1	OAX7L	La Voz del Altiplano, Peru	
	50.34	5	VQO2	Solomon Isl.	
	50.34	100		Trans World Radio, Monaco	
	50.34	50/60/100		R. Roma, Italy	
	50.34	10/100		R. Free Europe, Germany	
	50.34	1	HJCF	Voz de Bogota, Colombia	
	50.34	25/100		Dakar, Senegal	
	50.34	1	HRRH5	Voz de Occidente, Honduras	
	50.34	1	BEP23	Taipei, Taiwan	
	50.34	2		R. Kashmir, India	
5965	50.29	15/100		BBC, London, Gt. Britain	
	50 29			Komsomolsk, USSR	
	50 29	50/60/100		R. Roma, Italy	
	50.28	0.2	HCGE5	R. Mundial, Ecuador	
	50.28	50/100/200		Delano, USA	
	50.28	50/250/500		Greenville, USA	
	50.28	0.5	YNWW	R. Sport, Nicaragua	
	50.28	0.5	HRVW2	Voz de Centro America, Hon.	
	50.28	7.5	ZYU60	R. Guaiba, Brazil	
5970	50.25	50		R. Canada, Canada	
	50.25			R. Berlin Int, Germ. (DDR)	
	50.25	1	HJKA	R. Horizonte, Colombia	
	50.25	0.5	TGMZ	R. Nacional, Guatemala	
	50.25	10		Dacca, Pakistan	
	50.25	1.5	BEC37	Taipei, Taiwan	
	50.25			Alma Ata, USSR	
	50.25	7.5	HISD	R. Santo Domingo, Dom. R.	
	50.25	10/100		R. Free Europe, Germany	
	50.25	1	YDO2	Bandjarmasin, Indonesia	
	50.25	4		R. Brazzaville, Congo	
	50.25	0.5	HCMH6	R. Cotopaxi, Ecuador	
	50.25	10	OBX4Q	R. El Sol, Peru	
	50.25	1	DZCA	NCDA, Philipp.	
	50.25	1		Quetta, Pakistan	
	50.25	8/100		Munich (VOA), Germany	
	50.25	120/240		Peking, China	
	50.25	10		AIR, Gauhati, India	
5975	50.21	15/100		BBC, London, Gt. Britain	
	50.21	35/100		Okinawa (VOA), Ryukyu Isl.	
	50.21	10/50		Karachi, Pakistan	
	50.21	10		Gwelo, Rhodesia	
	50.21	10/100		R. Habana, Cuba	
	50.21	10	ZYT44	R. Guaruja, Brazil	
	50.21	3	ZPA6	R. Guaira, Paraguay	
	50.21	4		Dakar, Senegal	
	50.21	50/250/500		Greenville, USA	
	50.21	1.5	CP44	R. Nacional LAB, Bolivia	
	50.21	10/100	VUD	AIR, Delhi, India	
	50.21	10	HLK22	Seoul, Korea	
5980	50.17	5	OBX4M	R. Panamericana, Peru	
	50.17	1	HJLY	R. Sintonia, Colombia	
	50.17	1	TGAR	R. Quetzal, Guatemala	
	50.17	7.5		Dacca, Pakistan	
	50.17	5		Freetown, Sierra Leone	
	50.17	10/50		Karachi, Pakistan	
	50.17	100	DMQ5	D. Welle, Germany	
	50.17	1		Taipei (BCC), Taiwan	
	50.17	50/100		R. Nederland, Holland	
	50.17	2	ZFY	R. Demerara, Br. Guiana	
5984	50.14	1		R. Buea, Cameroon	
5985	50.13	20	LRS2	R. Splendid, Argentina	
	50.13	50/60/100		R. Roma, Italy	
	50.13	7.5	4VB	R. Commerce, Haiti	
	50.13	50/100/200		Dixon, USA	
	50.13	10/100		R. Free Europe, Germany	
	50.13	50/100		R. Nederland, Holland	
	50.13	120/240		Peking, China	
	50.13	0.4	CHAH3	R. El Trebol, Ecuador	
5990	50.08	15/100		BBC, London, Gt. Britain	
	50.08	10/100		R. Free Europe, Germany	
	50.08	50		R. Canada, Canada	
	50.08	7.5	PRL5	R. Educacão, Brazil	
	50.08	100		Hörby, Sweden	
	50.08	5	YDS2	Menado, Indonesia	
	50.08	5		Pakanbaru, Indonesia	
	50.08	10/100	VUD	AIR, Delhi, India	
	50.08	5	TGJA	R. Nuevo Mundo, Guat.	
	50.08	120/240		Peking, China	
	50.08	100		R. Habana, Cuba	
	50.08	10		AIR, Bhopal, India	
	50.08	100		Bucharest, Rumania	
5993	50.05	10		R. Coquilhatville, Congo R.	

kc	m	kW	Call	Stations & countries	Rem.
5994	50.04	4		R. Martinique, Martinique	
5995	50.04	40		R. Nacional, Spain	
	50.04	35		Thessaloniki (VOA), Greece	
	50.04	1	HOM50	Circuito RPC, Panama	
	50.04	1	CP41	R. Loyola, Bolivia	
	50.04	7.5/20		Omdurman, Sudan	
	50.04	50/250/500		Greenville, USA	
	50.04	1	HRP1	El Eco de Honduras, Hon. R.	
	50.04	10/100	VUD	AIR, Delhi, India	
	50.04	25		R. Andorra, Andorra	
	50.04	1	HJFQ	Voz del Pueblo, Colombia	
6000	50.00	1/50	OEI20	Aldrans, Austria	
	50.00			R. FSB, Bolivia	
	50.00		CE600	R. El Carbon, Chile	
	50.00	5	CXA2	R. Sur, Uruguay	
	50.00	1	TGTA	R. Sonora, Guatemala	
	50.00	5	PRK5	R. Inconfidencia, Brazil	
	50.00	1		R. Djibouti, Fr. Somaliland	
	50.00	100	DMQ6	D. Welle, Germany	
	50.00	120/240		Peking, China	
	50.00	7.5		R. Americas, Swan Island	
	50.00	1	OAX7E	R. Nac. Puno, Peru	
	50.00		YVNL	R. Miranda, Venezuela	
6003	49.97	0.5		Tripolis, Greece	
6004	49.96	7.5		Colombo, Ceylon	
6005	49.96	20		Berlin RIAS, Germany	
	49.96	0.075	CFCX	Montreal, Canada	
	49.96			Khabarovsk, USSR	
	49.96	100		Praha, Czechoslovakia	
	49.96	20		Paradys, So. Africa	
	49.96	7.5/100		Warsaw, Poland	
	49.96	3.5		R. Zanzibar, Zanzibar	
6006	49.95	1	TIHBG	R. Reloj, Costa Rica	
6010	49.92	5	YSS	R. Nacional, El Salvador	
	49.92	1	CJCX	Sidney, Canada	
	49.92	0.25/10	VUC	AIR, Calcutta, India	
	49.92	10/100	VUD	AIR, Delhi, India	
	49.92	1	CE601	Emisoras Norte, Chile	
	49.92	15/100		BBC, London, Gt. Britain	
	49.92	50/60/100		R. Roma, Italy	
	49.92	35/100		Okinawa (VOA), Ryukyu Isl.	
	49.92	2.5	XEOI	Radio Mil, Mexico	
	49.92	3	OAX4V	R. América, Peru	
	49.92	1	HJFK	La Voz Amiga, Colombia	
6015	49.88	10/100		R. Free Europe, Germany	
	49.88	50/80	WRUL	R. New York, USA	
	49.88	100		R. Habana, Cuba	
	49.88			Kiev, USSR	
	49.88	1	ZPA10	R. Paraguay, Paraguay	
	49.88	100	DMQ6	D. Welle, Germany	
	49.88	35		Courier (VOA), Greece	
	49.88	0.75	4VEB	R. Caraibes, Haiti	
	49.88	5	PRA8	R.Cl. de Pernambuco, Br.	
	49.88	0.5	HCEB4	R. Manta, Ecuador	
6020	49.83	8/100		Munich (VOA), Germany	
	49.83			Kiev, USSR	
	49.83	2.5		AIR, Simla, India	
	49.83	10	HJCX	Voz de Colombia, Colombia	
	49.83	10/100		R. Free Europe, Germany	
	49.83	0.25	XEUW	El Eco de Sotavento, Mexico	
	49.83	1	TGDA	La Voz de Occidente, Guate.	
	49.83	20		Gwelo, Rhodesia	
	49.83	3		Amman, Jordan	
	49.83			Komsomolsk, USSR	
	49.83	1	CE602	Diego Portales, Chile	
	49.83	10		R. Nederland, Holland	
	49.83	1	HROW2	R. Monserrat, Honduras	
	49.83	3	OAX4Q	R. Victoria, Peru	
6025	49.79	10	ZYR63	R. Em. de Piratininga, Br.	
	49.79	5	YNX	R. Equis, Nicaragua	
	49.79	0.3		Van, Turkey	
	49.79	10/100	CSA52	R. Nacional, Portugal	
	49.79	3	ZPA1	R. Nacional, Paraguay	
	49.79	0.1	HIHD	Voz de Oriente, Dom. Rep.	
	49.79	50/100		R. Nederland, Holland	
	49.79	5		R. Malaya, Malaya	
	49.79	10	CR6RZ	R. Angola, Angola	
	49.79	120/240		Peking, China	
6028	49.77	1	OAX8B	R. Nac. Iquitos, Peru	
6030	49.75	20		Mühlacker (SDR), Germany	
	49.75			Dushambe, USSR	
	49.75	0.1	CFVP	Calgary, Canada	
	49.75	0.25	HP5B	R. Cadena Miramar, Pan.	
	49.75	2	DZH6	"The Call of Orient", Philipp.	
	49.75	5	TGTQ	R. Internacional, Guat.	
	49.75	0.2	HCRQ2	Voz del Tropico, Ecuador	
	49.75	50/250/500		Greenville, USA	

kc	m	kW	Call	Stations & countries	Rem.
6030	49.75	4		R. Mcanda, Gabon	
	49.75	100		Baghdad, Iraq	
6035	49.71	10	HLK52	Seoul, Korea	
	49.71	50/100		R. Nederland, Holland	
	49.71	0.5	HCNK3	R. Cariamanga, Ecuador	
	49.71	50		Monrovia (VOA), Liberia	
	49.71	15/100		BBC, London, Gt. Britain	
	49.71	10	ZYZ26	R. Globo, Brazil	
	49.71	30		R. Monte-Carlo, Monaco	
	49.71	30		R. Mauritania, Mauritania	
	49.71	120/240		Peking, China	
	49.71	50	XZK3	Rangoon, Burma	
	49.71	1.5	HRTL	R. Tegucigalpa, Hond. R.	
	49.71	1	CXA30	R. Nacional, Uruguay	
6037	49.69	0.3	TIFC	Faro del Caribe, Costa Rica	
6038	49.69	0.5	OAX6B	R. Landa, Peru	
6040	49.67	4/30		R. Yaounde, Cameroon	
	49.67	0.5	TGCO	Voz del Trópico, Guatemala	
	49.67	35/50/100		Tangier (VOA), Morocco	
	49.67	1		Thonburi, Thailand	
	49.67	35		Thessaloniki, Greece	
	49.67	20		Taipei (BCC), Taiwan	
	49.67	0.5	YNLUA	Radio City, Nicaragua	
	49.67	10	HJCB	La Voz del Tolima, Colomb.	
	49.67	50/200		Delano, USA	
	49.67	0.25	CE604	R. Libertad, Chile	
	49.67	8/100		Munich (VOA), Germany	
6042	49.65	0.3	OAX6A	R. Arèquipa, Peru	
6045	49.63	10/100	VUD	AIR, Delhi, India	
	49.63	35/100		Poro (VOA), Philippines	
	49.63	0.25		R.Universid., Potosina, Mex.	
	49.63	100	YDF	Djakarta, Indonesia	
	49.63	1	HOU31	Voz del Baru, Panama	
	49.63	5		Athens (FBS), Greece	
	49.63	7.5	ZYS33	R. Clube Paranaense, Brazil	
	49.63	110		Bethany, USA	
	49.63	25		Ouagadougou, Upper Volta	
	49.63	10	CXA61	El Espectador, Uruguay	
6050	49.59	1	HRLP3	R. America, Honduras R.	
	49.59			Tbilisi, USSR	
	49.59	7.5		R. Clube de Mozambique	
	49.59	100	ETLF	Addis Ababa, Ethiopia	
	49.59			R. Berlin Int, Germ. (DDR)	
	49.59			R. Villazon, Bolivia	
	49.59	100	HEI22	Schwarzenburg, Switzerl.	
	49.59			Chita, USSR	
	49.59	50		Komsomolsk, USSR	
	49.59			Tskhinvali, USSR	
	49.59	15/100		BBC, London, Gt. Britain	
	49.59	5.6		Kigali, Rwanda	
	49.59	30	HCJB	Voz de los Andes, Ecuador	
6055	49.55	10	HJEX	R. Pacifico, Colombia	
	49.55	10	PRB21	R. Panamericana, Brazil	
	49.55	0.5	YNTP	R. Puerto, Nicaragua	
	49.55	2	VTW2	Tarawa, Gilbert Isl.	
	49.55	1	OAX6E	R. Continental, Peru	
	49.55			Petrozavodsk, USSR	
	49.55	10/50	JOZ2	Tokyo, Japan	
	49.55	0.35	DYH4	Dumaguete City, Philipp.	
	49.55	10/100		R. Kuwait, Kuwait	
	49.55	5	CXA53	La Voz de Melo, Uruguay	
	49.55	20/50		R. Liberty, Germany	
	49.55	100		Praha, Czechoslovakia	
	49.55	100	HER2	Schwarzenburg, Switzerland	
	49.52	2	OAX2A	R. Trujillo, Peru	
6060	49.50	0.3	HRYN4	Voz del Merendon, Hond. R.	
	49.50	8/100		Munich (VOA), Germany	
	49.50	20		Lusaka, Rhodesia	
	49.50	10/100	VUD	AIR, Delhi, India	
	49.50	50/200		Delano, USA	
	49.50	4		R. Niger, Niger	
	49.50	16	LRA31	Buenos Aires, Argentina	
	49.50			R. Berlin Int, Germ. (DDR)	
	49.50	0.5	HIAZ	R. Santiago, Dom. Rep.	
	49.50	1	TGRLA	R. Landivar, Guatemala	
	49.50			R. Habana, Cuba	
	49.50	50/60/100		R. Roma, Italy	
	49.50	0.75	HCAC1	Voz de Democracia, Ecuador	
6062	49.48	2		Bangkok, Thailand	
	49.48	1	OAX8L	R. Telesar, Peru	
6065	49.46	0.6	YNEQ	R. Universal, Nicaragua	
	49.46	110		Bethany, USA	
	49.46	10	PRL8	R. Nac. Brasilia, Brazil	
	49.46	1		Lahore, Pakistan	
	49.46	10/100	VUD	AIR, Delhi, India	
	49.46	7.5/10		Dacca, Pakistan	
	49.46	7.5	ZYZ31	R. Rural, Brazil	

kc	m	kW	Call	Stations & countries	Rem.
6065	49.46	35/100		Poro (VOA), Philippines	
	49.46	0.2	HCEM1	Ondas Carchenses, Ecuador	
	49.46	100		Hörby, Sweden	
	49.46	15/240		Peking, China	
	49.46	5	XEXG	Rdif. Mexico, Mexico	
6070	49.42	0.4	TGPA	R. Palmeras, Guatemala	
	49.42	1	CP18	Oruro, Bolivia	
	49.42	1	CFRX	Toronto, Canada	
	49.42	15/100		BBC, London, Gt. Britain	
	49.42	120		R. Sofia, Bulgaria	
	49.42	0.5	HCIW5	R. El Mercurio, Ecuador	
	49.42	1	HSK5	R. Thailand, Thailand	
	49.42	0.3	OAX4S	Onda Popular, Peru	
	49.42	5	CE607	R. Soc. Nac. de Mineria, Chile	
	49.42	5		Kotabaru, Indonesia	
	49.42	100		Accra, Ghana	
	49.42	4		Ziguinchor, Senegal	
6075	49.38	1	TISRHB2	R. Popular, Costa Rica	
	49.38	50/250/500		Greenville, USA	
	49.38	50		Monrovia (VOA), Liberia	
	49.38	10	HJGT	R. Sutatenza, Colombia	
	49.38	20		Osterloog (NDR), Germany	
	49.38	2.5	CXA3	R. Ariel, Uruguay	
	49.38	7.5		Colombo, Ceylon	
	49.38	0.15	4VCP	LV du Nord, Haiti	
	49.38	1		Cayenne, Fr. Guiana	
	49.38	0.25	HIDB	R. Libertad, Dom. Rep.	
	49.38	35/100		Okinawa (VOA), Ryukyu Isl.	
	49.38	0.6	HRMH5	La Voz del Junco, Hond. R.	
6080	49.34	15/100		BBC, London, Gt. Britain	
	49.34	120/240		Peking, China	
	49.34	0.25	DZI7	Voice of Manila, Philipp.	
	49.34	35/100		Tangier (VOA), Morocco	
	49.34	0.1	CFKX	Vancouver, Canada	
	49.34	5		Grenada, Windw. Isl.	
	49.34	50/100		Cairo, Un. Arab. Rep.	
	49.34			R. Berlin Int, Germ. (DDR)	
	49.34	10	CSB51	R.Cl. Portuguese, Portugal	
	49.34	0.5	TGSM	R. Nac. S. Marcos, Guatem.	
	49.34		HCDG2	R. Bolivar, Ecuador	
	49.34	20/200		R. Japan, Japan	
6082	49.32	10	OAX4Z	R. Nacional, Lima, Peru	
6085	49.30	10		Munich (BR), Germany	
	49.30	0.5	YNRS	Ondas Populares, Nicaragua	
	49.30	1	HJHJ	Ecos de Pasto, Colombia	
	49.30	50/200		Dixon, USA	
	49.30			Tallinn, USSR	
	49.30	0.5		Izmir, Turkey	
	49.30	10/100	VUD	AIR, Madras, India	
	49.30	50/100		R. Nederland, Holland	
	49.30	15	ZYK2	R. Jornal do Comercio, Br.	
	49.30	10		R. Stanleyville, Congo Rep.	
6090	49.26	2	VLI6	Sydney, Australia	
	49.26	3	BEC26	Taipei, Taiwan	
	49.26	0.5	HCVM6	R. Once de Nov, Ecuad.	
	49.26	2	TGDZ	R. Centroamericana, Guat.	
	49.26	10		R. Kaduna, Nigeria	
	49.26	50		R. Luxembourg, Luxemb.	
	49.26	15		R. Cambodge, Cambodia	
	49.26			Irkutsk, USSR	
	49.26	40	LRY1	R. Belgrano, Argentina	
	49.26	0.5	HRNQ4	R. Morazan, Honduras Rep.	
	49.26	1	HIUA	R. Caribe, Dom. Rep.	
	49.26	1	XECMT	Ci. Mante, Mexico	
6095	49.22	10/100		R. Free Europe, Germany	
	49.22	50/80	WRUL	R. New York, USA	
	49.22	50/200		Delano, USA	
	49.22	100		Baghdad, Iraq	
	49.22	25	ZYB7	R.Dif. de São Paulo, Brazil	
	49.22	20		Chiayi (BCC), Taiwan	
	49.22	20		Paradys, So. Africa	
	49.22	0.3	HCPT5	Voz del P. Socorro, Ecuador	
6097	49.20			R. Thailand, Thailand	
6100	49.18	0.3	HCSP4	Voz del Volante, Ecuador	
	49.18	0.25	4VU	R. Lumière, Haiti	
	49.18	0.25	CE610	R. Calama, Chile	
	49.18	100		R. Habana, Cuba	
	49.18	0.25		Bangkok, Thailand	
	49.18	15/120		Peking, China	
	49.18	100	DMQ6	Deutsche Welle, Germany	
	49.18	10/100		R. Belgrade, Yugoslavia	
	49.18	7.5		AIR, Kurseong, India	
	49.18	0.5	YNHC	R. Her. Cordoba, Nicaragua	
	49.18	0.54		LV de l'Ave Marie, Haiti	
6105	49.14	1	HJNT	R. Vision, Colombia	
	49.14			Bangkok, Thailand	
	49.14	7.5	BEC61	Air Force St, Taiwan	
6105	49.14	10		R. Malaya, Malaya	
	49.14	0.25	HCVC3	R. Centinela, Ecuador	
	49.14	0.25	XEQM	Merida, Mexico	
	49.14	5	ZYN6	Ceará R. Clube, Brazil	
	49.14	10/100		R. Free Europe, Germany	
6110	49.10	1/20		Radio Kashmir, India	
	49.10			Baku, USSR	
	49.10	15/100		BBC, London, Gt. Britain	
	49.10	1	ZPA11	R. Charitas, Paraguay	
	49.10	0.5	TGQA	R. Nacional Guatemala	
	49.10	0.5	HRXW2	R. Comayagüela, Hond. R.	
	49.10	1	HIZ	Broadcasting Nac, Dom. R.	
	49.10	5	CE611	Soc. Nac. de Agricult, Chile	
6115	49.06	1	HJHE	R. El Sol, Colombia	
	49.06	1		R. Douala, Cameroon	
	49.06	10	XEWW	Voz America Latina, Mexico	
	49.06	5/100		R. Clube de Mozambique	
	49.06	35/50/100		Tangier (VOA), Morocco	
	49.06	50	ZYC7	R. Tupi, Brazil	
	49.06	1	CXA73	R. Clarin, Uruguay	
	49.06	1	OBX4Z	R. Luz, Peru	
	49.06	0.3	OAX4H	R. Mundial, Peru	
	49.06	20		R. Berlin Int, Germ. (DDR)	
	49.06			Khabarovsk, USSR	
	49.06			Dalat, Vietnam	
6120	49.02	10	LRX1	El Mundo, Argentina	
	49.02	50		"Call of Orient", Philip. Isl.	
	49.02	10		Peshawar, Pakistan	
	49.02	35/50/100		Tangier (VOA), Morocco	
	49.02	50		R. Canada, Canada	
	49.02	15/100		BBC, London, Gt. Britain	
	49.02	0.5	YNCA	R. Atlantico, Nicaragua	
	49.02	0.5	XETS	R. XETS, Mexico	
	49.02	15	OIX7	Pori, Finland	
	49.02	7.5/20		BBC, Cyprus	
	49.02	10		AIR, Hyderabad, India	
	49.02	0.5	HICB	R.dif. HICB, Dom. Rep.	
	49.02		HCRL2	Quinta Piedad, Ecuador	
	49.02	120/240		Peking, China	
6125	48.98	10	CXA4	S.O.D.R.E, Uruguay	
	48.98	10/100	VUD	AIR, Delhi, India	
	48.98	50		R. Tunis, Tunis	
	48.98	20/50		R. Liberty, Germany	
	48.98	1	HRQ4	R. Suyapa, Honduras Rep.	
	48.98	15/100		BBC, London, Gt. Britain	
	48.98	1.5	CP15	El Condor, La Paz, Bolivia	
	48.98	10/100		R. Free Europe, Germany	
	48.98	35/100		Poro (VOA), Philippines	
	48.98	120/240		Peking, China	
	48.98	10		R. Luluabourg, Congo Rep.	
	48.98	7.5	PRG9	R. Nac. de S. Paulo, Brazil	
	48.98	1	HJKE	R. Continental, Colombia	
6130	48.94	0.5	CHNX	Halifax, Canada	
	48.94	1.5	YNI	R.dif. León, Nicaragua	
	48.94	10	VLT6	Port Moresby, New Guinea	
	48.94	1.5	HCFB2	R. Condor, Ecuador	
	49.94	0.2/100	LKJ	R. Norway, Norway	
	48.94	10/100		R. Free Europe, Germany	
	48.94	100		R. Nacional, Spain	
	48.94	10		AIR, Gauhati, India	
6135	48.90	0.9	HRME2	La Voz del Patio, Hond. R.	
	48.90	100		R. Habana, Cuba	
	48.90	100		Praha, Czechoslovakia	
	48.90	7.5/100		Warsaw, Poland	
	48.90			Ulan Ude, USSR	
	48.90	25		Ulan Bator, Mongolia	
	48.90	0.15	CP30	Santa Cruz, Bolivia	
	48.90	1	CR6RU	Carmona, Angola	
	48.90	1	CE613	Concepcion, Chile	
	48.90	0.3	OCX4M	R. Pasco, Peru	
	48.90	4		Tananarive, Malagasy Rep.	
	48.90	4		Papéete, Tahiti	
	48.90	10		R. Malaya, Malaya	
	48.90	120/240		Peking, China	
	48.90	7.5	PRC21	R. Soc. Gaucha, Brazil	
6140	48.86			R. Chorolque, Bolivia	
	48.86	35/50/100		Tangier (VOA), Morocco	
	48.86		OAX9B	R. Amazonas, Peru	
	48.86	20/100	ORU	Wavre, Belgium	
	48.86	10/100	VUD	AIR, Delhi, India	
	48.86	1		R. Tripoli, Libya	
	48.86	0.5	YNW	R. Mundial, Nicaragua	
	48.86	10	VLW6	Perth, Australia	
	48.86	20/200		R. Japan, Japan	
	48.86	8/100		Munich (VOA), Germany	
	48.86	1	TGHC	R. Universal, Guatemala	
	48.86	10	CXA20	R. Monte Carlo, Uruguay	

kc	m	kW	Call	Stations & countries	Rem.
6140	48.86	1	HCQV5	Ondas del Volante, Ecuador	
6145	48.82	100		Allouis, France	
	48.82	25/100		Vatican Radio	
	48.82	35/100		Okinawa (VOA), Ryukyu Isl.	
	48.82	100	DMQ6	Deutsche Welle, Germany	
	48.82	2.5/5		Enugu (NBC), Nigeria	
	48.82	0.3	HRXN4	R. Estrella, Hond. R.	
	48.82	120/240		Peking, China	
	48.82	50/200		Dixon, USA	
	48.82	1	HJED	La Voz de Cauca, Colombia	
	48.82	50	PRL9	R. Nacional, Rio de Jan., Br.	
6150	48.78	10	VLR6	Melbourne, Australia	
	48.78	15/100		BBC, London, Gt. Britain	
	48.78	7.5/20		Omdurman, Sudan	
	48.78	100		R. Bucharest, Rumania	
	48.78	1	YNMV	R. Continental, Nicaragua	
	48.58	1		R. Cl. Benguela, Angola	
	48.78	10/100		R. Belgrade, Yugoslavia	
	48.78	120/240		Peking, China	
	48.78	20		Paradys, So. Africa	
	48.78	1/10		R. Lao, Laos	
	48.78	0.5	TGAZ	R. Continental, Guatemala	
	48.78	10/100	VUB	AIR, Bombay, India	
	48.78	0.5	OBX4G	R. Excelsior, Peru	
6155	48.74	3	CSB2	R. Renascenca, Portugal	
	48.74	1	CP12	R. Fides, Bolivia	
	48.74	1/50	OEI21	Wien, Austria	
	48.74	10	CXA13	R. Carve, Uruguay	
	48.74	0.25	4VWA	R. Citadelle, Haiti	
	48.74	15/240		Peking, China	
	48.74	110		Bethany, USA	
	48.74	7.5		R. Tabriz, Iran	
	48.74	4/100		Lomé, Togo	
	48.74	50		Baghdad, Iraq	
	48.74	1	HRUC	R. Centro, Honduras R.	
	48.74	0.3	HCLT4	R. Costa Azul, Ecuador	
	48.74	10		Tokyo (FEN), Japan	
	48.74			Kansu, China	
	48.74	18		Conakry, Guinea	
6160	48.70	100	DMQ6	D. Welle, Germany	
	48.70			R. Thailand, Thailand	
	48.70	1.1		R. Litoral, Bolivia	
	48.70	8/100		Munich (VOA), Germany	
	48.70	1	OCX4G	R. Mundo, Peru	
	48.70	10	HJKJ	Nueva Granada, Colombia	
	48.70	50		Algier 3, Algeria	
	48.70	0.5	CBUX	Vancouver, Canada	
	48.70	0.25	TGZA	R. Club, Guatemala	
	48.70	10/100		R. Free Europe, Germany	
6165	48.66			Saigon, Vietnam	
	48.66	1	HRTW4	R. Hondureña, Hond.	
	48.66	50		Damascus, Syria	
	48.66	100	HER3	Schwarzenburg, Switzerland	
	48.66	15/100		BBC, London, Gt. Britain	
	48.66	30		R. Tchad, Chad	
	48.66	1	4VM	R. Manrèse, Haiti	
	48.66	7.5	ZYR58	R. Cultura, Brazil	
6170	48.62	10		AIR, Lucknow, India	
	48.62	50		Sofia, Bulgaria	
	48.62	100	DMQ6	D. Welle, Germany	
	48.62	120/240		Peking, China	
	48.62	4		Tananarive, Malagasy Rep.	
	48.62	35/100		Tangier (VOA), Morocco	
	48.62	15/100		BBC, London, Gt. Britain	
	48.62	1	CXA21	R. Fenix, Uruguay	
	48.62	1	OAX1N	R. Progreso, Peru	
	48.62	35/100		Okinawa (VOA), Ryukyu Isl.	
	48.62	7.5/20		BBC, Cyprus	
	48.62	0.2	HCPJ2	R. Fluminense, Ecuador	
	48.62	0.3	OBX4B	R. Corporación, Peru	
	48.62	10	DUH2	Philipp. Br., Philipp.	
	48.62	10	YVKO	R. Nacional, Venezuela	
6175	48.58	22.5		R. Singapore, Singapore	
	48.58	100	DMQ6	D. Welle, Germany	
	48.58	20		Kaduna (NBC), Nigeria	
	48.58	50/250/500		Greenville, USA	
	48.58	10		R. Guarani, Brazil	
	48.58	100		Allouis, France	
	48.58	2		Malaga (RNE), Spain	
6176	48.57			Shensi, China	
6178	48.55	0.2	4VSC	R. St. Marc, Haiti	
6180	48.54	1	HJCT	R. Televisora Nac, Colombia	
	48.54	15/100		BBC, London, Gt. Britain	
	48.54	35/50/100		Tangier (VOA), Morocco	
	48.54	50		Brentwood, USA	
	48.54	1	TGWB	Voz de Guatemala, G.	
	48.54	10/100	VUD	AIR, Delhi, India	
6180	48.54	10	LRA34	R. Nac. Mendoza, Argentina	
	48.54	120/240		Peking, China	
	48.54	0.6	HCRT6	R. Paz y Bien, Ecuador	
6185	48.50	10		Addis Ababa, Ethiopia	
	48.50	10		Ibadan (WNRS), Nigeria	
	48.50	0.5	HRMT4	R. Molino Rojo, Honduras	
	48.50	0.25	CP9	R. Amauta, Bolivia	
	48.50	50/200		Delano, USA	
	48.50	10	ZYR77	R. Bandeirantes, Brazil	
	48.50	7.5/50		Malolos (VOA), Philipp.	
	48.50	0.2	LLI	R. Norway, Norway	
	48.50	0.2	HCXX2	La Voz de Vinces, Ecuador	
	48.50	100	CSA29	R. Nacional, Portugal	
	48.50	35		Thessaloniki (VOA), Greece	
	48.50	35		Courier (VOA), Greece	
	48.50	10/100		R. Free Europe, Germany	
	48.50	7.5		Colombo, Ceylon	
6190	48.47	25/100		Vatican Radio	
	48.47	10		R. Bremen, Germany	
	48.47	110		Bethany, USA	
	48.47	0.1	HIAU	Broadc. Tropical, Dom. R.	
	48.47	0.3	OAX4G	R. Lima, Peru	
	48.47	0.25	YNUW	R. Dario, Nicaragua	
	48.47	5	CE619	R. Corporación, Chile	
	48.47	0.5	TGFP	R. Nac, Guatemala	
	48.47	100		Bucharest, Rumania	
	48.47	10/100	VUD	AIR, Delhi, India	
	48.47	50		Sebaa-Aioun, Morocco	
6195	48.43	15/100		BBC, London, Gt. Britain	
	48.43	10	YDL3	Padang, Indonesia	
	48.43			Khabarovsk, USSR	
	48.43	0.5	HRD2	Voz Atlantida, Hond.	
	48.43	10		R. Burundi, Burundi	
	48.43	1	HJEZ	Voz de Cali, Colombia	
	48.43	1	4VHW	R. Haiti, Haiti	
	48.43	1	HCEH6	R. Cosmopolita, Ecuador	
	48.43			Pyongyang, Korea (Dem.)	
	48.43	100		Honolulu (VOA), Hawaii	
	48.43	10	PRD21	Emis. Continental, Brazil	
	48.43	0.5	OAZ4E	R. Mineria, Peru	
6198	48.40	1	OAX1B	R. Piura, Peru	
6200	48.39	1	YNJM	R. Norte, Nicaragua	
	48.39	120/240		Peking, China	
				6210–7100kc	
6210	48.31	120/240		Peking, China	
	48.31			R. Chichas, Bolivia	
6212	48.29	15/120		Peking, China	
6215	48.27	1	TIGPH	R. Monumental, Costa Rica	
6225	48.19	15/120		Peking, China	
6234	48.10	100		R. Budapest, Hungary	
6235	48.10	10/50		Karachi, Pakistan	
	48.10	1	OAX6I	R. Universidad, Peru	
6245	48.04	10/50		Karachi, Pakistan	
6250	48.00	5		S. Isabel, Sp. Guinea	
	48.00			Pyongyang, Korea (Dem.)	
	48.00	1	OAX7A	R. Cuzco, Peru	
6260	47.92			Chinghai, China	
6265	47.90	0.3	OAX7C	R. Tahuantisuyo, Peru	
6270	47.87	120/240		Peking, China	
6280	47.77			Sinkiang, China	
6290	47.70	120/240		Peking, China	
6299	47.62	1		Tec. Univ, Istanbul, Turkey	
6300	47.62	0.75	OBX4P	R. Miraflores, Peru	
6305	47.58	1		R. des Vallées Andorre, And.	
6315	47.48	2		Bangkok, Thailand	
6325	47.43	120/240		Peking, China	
6345	47.28	1.6		Santa Isabel, Sp. Guinea	
	47.28	120/240		Peking, China	
6350	47.24			Union R, Bolivia	
6405	46.84	1		Bangkok, Thailand	
6500	46.16			Chinghai, China	
	46.16			R. Busch, Bolivia	
6525	45.98			R. Camiri, Bolivia	
6595	45.48	15/120		Peking, China	
6600	45.45			R. Libertad, Bolivia	
6660	45.04	0.2		R. Kukësi, Albania	
6700	44.74	0.4		R. Sanandaj, Iran	
	44.74	0.3	OAX1A	R. Delcar, Peru	
6770	44.31			Alma Ata, USSR	
6780	44.25			Khabarovsk, USSR	
6790	44.18	15/120		Peking, China	
6810	44.05	15/120		Peking, China	
6825	43.96			Tashkent, USSR	
6840	43.85			Inner Mongolia, China	
6850	43.80	0.35		Pathfinders St., Poland	
6860	43.72	120/240		Peking, China	
6870	43.64			Alma Ata, USSR	

kc	m	kW	Call	Stations & countries	Rem.
6890	43.54	15/240		Peking, China	
6937	43.25			Yunnan, China	
6940	43.23	0.4		R. Rezaieh, Iran	
6955	43.13	120/240		Peking, China	
6974	43.02			Inner Mongolia, China	
**6985	42.95		GIC26	Hailsham, Gt. Britain	
	42.89	15/120		Peking, China	
7000	42.86	1		R. Atlantico, Canary Isl.	
7010	42.80	10/50		Karachi, Pakistan	
7018	42.74	0.5		Istanbul Tec. Univ, Turkey	
7031	42.62	100		R. Iran, Iran	
7035	42.64	120/240		Peking, China	
7050	42.55	50/100		Cairo, Un. Arab. Rep.	
	42.52			Sinkiang, China	
7060	42.49	120/240		Peking, China	
7065	42.46	120/240		Peking, China	
7075	42.40	50/100		Cairo, Un. Arab Rep.	
7080	42.37	120/240		Peking, China	
7085	42.32	100		R. Iran, Iran	
7090	42.31	50		R. Tirana, Albania	
7095	42.28	120/240		Peking, China	
			7100–7300	kc (41 m.b.)	
7100	42.25	15/120		Peking, China	
7105	42.22	10/100		R. Free Europe, Germany	
	42.22	35/50/100		Tangier (VOA), Morocco	
	42.22	4/50		R. Brazzaville, Congo	
	42.22	10/100	VUD	AIR, Delhi, India	
	42.22	1	CR6RO	R. Clube do Bie, Angola	
	42.22	5		R. Nepal, Nepal	
	42.22	30		R. Niger, Niger	
	42.22	100		R. Nacional, Spain	
7110	42.19	10/35		Colombo (VOA), Ceylon	
	42.19	35/100		Tangier (VOA), Morocco	
	42.19	15/100		BBC, London, Gt. Britain	
	42.19	100	HED2	Schwarzenburg, Switzerland	
	42.19	5/8		Kampala, Uganda	
	42.19	7.5/100		BBC, Singapore	
	42.19	10		Rawalpindi, Pakistan	
	42.19	10		R. Malaya, Malaya	
7115	42.16	120/240		Peking, China	
	42.16			Cabo Delgado, Mozambique	
	42.16	10/100		R. Free Europe, Germany	
	42.16	10		Sebaa-Aioun, Morocco	
7120	42.13	10	YDU6	Denpassar, Indonesia	
	42.13	15/100		BBC, London, Gt. Britain	
	42.13	50	XZK4	Rangoon, Burma	
	42.13	100	ETLF	Addis Ababa, Ethiopia	
7125	42.11	5		Nairobi, Kenya	
	42.11	35/50/100		Tangier (VOA), Morocco	
	42.11	18		Conakry, Guinea (Rep.)	
	42.11	7.5/100		Warsaw, Poland	
	42.11	10/100	VUD	AIR, Delhi, India	
	42.11	100		R. Iran, Iran	
	42.11	120/240		Peking, China	
7130	42.08	15/100		BBC, London, Gt. Britain	
	42.08			Minsk, USSR	
	42.08	20		Taipei (BCC), Taiwan	
	42.08	10		Rdif.Congolaise,Congo,(Rep)	
	42.08	20/50		R. Liberty, Germany	
	42.08	100	CSA55	R. Nacional, Portugal	
	42.08	10/50		Karachi, Pakistan	
	42.08	10		Peshawar, Pakistan	
	42.08	35		Courier (VOA), Greece	
7135	42.05	15/100		BBC, London, Gt. Britain	
	42.05	0.5		Bangkok, Thailand	
	42.05	4		R. Niger, Niger	
	42.05	30		R. Monte-Carlo, Monaco	
	42.05	7.5/50		Malolos (VOA), Philipp.	
	42.05	7.5/100		BBC, Singapore	
	42.05	120/240		Peking, China	
7140	42.02	15/100		BBC, London, Gt. Britain	
	42.02	50/100		Cairo, Un. Arab. Rep.	
	42.02	7.5/20		BBC, Cyprus	
	42.02	20/100	ORU	Wavre, Belgium	
	42.02	10/100		R. Free Europe, Germany	
	42.02	1	YDR2	Ambon, Indonesia	
	42.02	10/100		Delhi, Hyderabad, India	
	42.02	0.5	CR6RA	R. Clube de Angola, Angola	
7142	42.01			Dalat, Vietnam	
7145	41.99	10/100		R. Free Europe, Germany	
	41.99	50		R. Mali, Mali	
	41.99	7.5/100		Warsaw, Poland	
	41.99	1/10		R. Lao, Laos	
7150	41.96	15/100		BBC, London, Gt. Britain	
	41.96	5		Nairobi, Kenya	
	41.96	5		R. Mogadiscio, Somali Rep.	
	41.96	0.25		Donmuang, Thailand	

kc	m	kW	Call	Stations & countries	Rem.
7150	41.96	20		Taipei (BCC), Taiwan	
	41.96	0.3		Jannina, Greece	
	41.96	120/240		Peking, China	
7151	41.95	0.5		Serrai, Greece	
7155	41.92	4		Tananarive, Malagasy Rep.	
	41.92	100		Amman, Jordan	
	41.92	10/100		R. Free Europe, Germany	
	41.92	35/100		Okinawa (VOA), Ryukyu Isl.	
	41.92	10/100	VUD	AIR Delhi, India	
7160	41.90	100		Allouis, France	
	41.90	1		R. Cl. Benguela, Angola	
	41.90			Quelimane, Mozambique	
	41.90	0.5		Santa Isabel, Sp. Guinea	
	41.90	1	CR6RD	Nova Lisboa, Angola	
	41.90	35/100		Okinawa (VOA), Ruykyu Isl.	
	41.90	1	DUH9	R. University, Philipp.	
	41.90	120/240		Peking, China	
	41.90	7.5		R. Sarawak, Sarawak	
	41.90	100	DMQ7	D. Welle, Germany	
7165	41.87	10/100		R. Free Europe, Germany	
	41.87	20		Dar-es-Salaam, Tanganyika	
	41.87	10/100	VUD	AIR, Delhi, India	
7170	41.84			Khabarovsk, USSR	
	41.84	10		Rdif.Congolaise,Congo,(Rep)	
	41.84	22.5		R. Singapore, Singapore	
	41.84	20/50		R. Liberty, Germany	
	41.84	4		Noumea, New Caledonia	
	41.84	15/120		Peking, China	
7175	41.81	10/100		R. Free Europe, Germany	
	41.81	1	CR6RS	Lobito, Angola	
	41.81			Caltanissetta, Italy	
	41.81	7.5/50		Malolos (VOA), Philippines	
	41.81	35/100		Poro (VOA), Philippines	
	41.81	25		R. Congo, Congo	
7180	41.78	1	BEG23	Taipei, Taiwan	
	41.78	120/240		Peking, China	
	41.78	10/100		R. Free Europe, Germany	
	41.78	100		Baghdad, Iraq	
	41.78	50/100		Cairo, Un. Arab. Rep.	
	41.78	10/100	VUD	AIR, Delhi, India	
7185	41.75	15/100		BBC, London, Gt. Britain	
	41.75	100	ETLF	Addis Ababa, Ethiopia	
	41.75	20		Paradys, So. Africa	
	41.75	10/100	VUD	AIR, Delhi, India	
7189	41.73	20	4XB49	Tel Aviv, Israel	
7190	41.72	10		Colombo, Ceylon	
	41.72			Kiev, USSR	
	41.72			Em. Reg. do Norte, Mocam.	
	41.72	10		Kotabaru, Indonesia	
	41.72	10/50/100		R. Australia, Australia	
	41.72	1	HLK30	Seoul, Korea	
	41.72	10/100		R. Free Europe, Germany	
7195	41.70	100		Bucharest, Rumania	
	41.70	20/200		R. Japan, Japan	
	41.70	5/8		Kampala, Uganda	
	41.70	10/100	VUD	AIR, Delhi, India	
	41.70	50		Monrovia (VOA), Liberia	
	41.70	15/120		Peking, China	
7200	41.67	15/100		BBC, London, Gt. Britain	
	41.67	35/50/100		Tangier (VOA), Morocco	
	41.67	0.25	OQ2AC	R. Collége, Congo	
	41.67	10/100		R. Belgrade, Yugoslavia	
	41.67	10		R. Malaya, Malaya	
	41.67	120/240		Peking, China	
	41.67	7.5/20		Omdurman, Sudan	
7205	41.64	10/100		R. Free Europe, Germany	
	41.64			Hué, Vietnam	
	41.64	20/100	DMQ7	D. Welle, Germany	
	41.64	10/100	VUD	AIR, Delhi, India	
	41.64	5	CR7RB	R. Pax, Mozambique	
	41.64	35		Thessaloniki (VOA), Greece	
	41.64	120/240		Peking, China	
7210	41.61			Khabarovsk, USSR	
	41.61	25/100	HEI3	Schwarzenburg, Switzerland	
	41.61	5/100		R. Clube de Mozambique	
	41.61	120/240		Peking, China	
	41.61	0.25/10	VUC	AIR, Calcutta, India	
	41.61	15/100		BBC, London, Gt. Britain	
	41.61	5	YDH3	Semarang, Indonesia	
	41.61	0.2/100	LLS	R. Norway, Norway	
	41.61	10		Nairobi, Kenya	
7215	41.58	1	AFRS	Taiwan	
	41.58	1.5	BEC24	Taipei, Taiwan	
	41.58	100		R. Budapest, Hungary	
	41.58	25		R. Abidjan, Ivory Coast	
	41.58	0.5		Kozani (FBS) Greece	
7220	41.55	15/100		BBC, London, Gt. Britain	

kc	m	kW	Call	Stations & countries	Rem.
7220	41.55	10		R. Malaya, Malaya	
	41.55	50		Riyadh, Saudi Arabia	
	41.55	20/50		R. Liberty, Germany	
	41.55	10/50/100		R. Australia, Australia	
	41.55	30		Bangui, C. Africa Rep.	
7225	41.52	10/100	VUD	AIR, Delhi, India	
	41.52	35/50		Poro (VOA), Philippines	
	41.52	10/50/100		R. Australia, Australia	
	41.52			Szechuan, China	
	41.52			Pyongyang,Korea (Dem.Rep.)	
	41.52	10/100		R. Free Europe, Germany	
	41.52	100		Bucharest, Rumania	
	41.52	1		Lahore, Pakistan	
	41.52	10		Sebaa-Aioun, Morocco	
	41.52	0.6		Kigali, Rwanda	
7230	41.49	20		Paradys, So. Africa	
	41.49	2/10	DZI9	Call of the Orient, Phill.	
	41.49			Taipei (BCC), Taiwan	
	41.49	10	JOZ6	Tokyo, Japan	
	41.49	15/100		BBC, London, Gt. Britain	
	41.49	0.35	CR6RM	R. Cl. de Moçamedes, Angola	
	41.49	120/240		Peking, China	
	41.49	1		Biak, Indonesia	
7235	41.47	10/100		R. Free Europe, Germany	
	41.47	50/60/100		R. Roma, Italy	
	41.47	100	DMQ7	D. Welle, Germany	
	41.47	50		Monrovia (VOA), Liberia	
	41.47	10/100	VUD	AIR, Delhi, India	
	41.47	25/100		Vatican Radio	
	41.47	35/100		Okinawa (VOA), Ryukyu Isl.	
7240	41.44	15/120		Peking, China	
	41.44	1.5	BEC28	Taipei, Taiwan	
	41.44	20	YDP3	Medan, Indonesia	
	41.44	15/100		BBC, London, Gt. Britain	
	41.44	4/30		R. Garoua, Cameroon	
	41.44	0.2/100	LLR	R. Norway, Norway	
	41.44	1	CR6RE	R. Cl. de Malanje, Angola	
	41.44	10/100		Belgrade, Yugoslavia	
	41.44	10/100	VUB	AIR, Bombay, India	
	41.44	100		Allouis, France	
	41.44	10		Nairobi, Kenya	
7245	41.41	4		R. Mauritania, Mauritania	
	41.41			Saigon, Vietnam	
	41.41	1/50	OEI33	Wien, Austria	
	41.41	4		St. Denis, Reunion	
	41.41	10/100		R. Free Europe, Germany	
7250	41.38	7.5		R. Clube de Mozambique	
	41.38	0.5		Bangkok, Thailand	
	41.38	10/100	VUD	AIR, Delhi, India	
	41.38	7.5/10		Dacca, Pakistan	
	41.38	8/100		Munich (VOA), Germany	
	41.38			Taipei (BCC), Taiwan	
	41.38	25/100		Vatican Radio	
	41.38	15		R. Singapore, Singapore	
7255	41.35	120		R. Sofia, Bulgaria	
	41.35	20/50		R. Liberty, Germany	
	41.35	10/100	VUD	AIR, Delhi, India	
	41.35	20		Taipei (BCC), Taiwan	
	41.35	35/50/100		Tangier (VOA), Morocco	
	41.35	0.3		Beira, Mozambique	
	41.35	20	YDJ2	Jogjakarta, Indonesia	
	41.35	20		Lagos, Nigeria	
7260	41.32	15/100		BBC, London, Gt. Britain	
	41.32	0.6		Kigali, Rwanda	
	41.32	7.5/10		Dacca, Pakistan	
	41.32	10/100	VUM	AIR, Madras, India	
	41.32	10/100	VUD	AIR, Delhi, India	
	41.32	3.5	BEC71	Air Force St., Taiwan	
	41.32	100		Trans World Radio, Monaco	
	41.32	4		Dzaoudzi, Comores Isl.	
7265	41.29	1.5		Bad Dürrheim (SWF), Germ.	
	41.29			Saigon, Vietnam	
	41.29	15/240		Peking, China	
7270	41.27			Erevan, USSR	
	41.27	7.5	YDB3	Djakarta, Indonesia	
	41.27	35/100		Tangier (VOA), Morocco	
	41.27	1.5	BEC34	Taipei, Taiwan	
	41.27	4		R. Gabon, Gabon	
	41.27	5		R. Sarawak, Sarawak	
	41.27	120/240		Peking, China	
7275	41.24	50/60/100		R. Roma, Italy	
	41.24	10/50		Karachi, Pakistan	
	41.24	20		Paradys, So. Africa	
	41.24	10		Lagos, Nigeria	
	41.24	35		Colombo (VOA), Ceylon	
7280	41.21	10/100		Allouis, France	
	41.21	15/100		BBC, London Gt. Britain	

kc	m	kW	Call	Stat ons & countries	Rem.
7280	41.21	1	CR6RD	Nova Lisboa, Angola	
	41.21	10		Dar-es-Salaam, Tanganyika	
	41.21	4		Tananarive, Malagasy Rep.	
	41.21	10		R. Malaya, Malaya	
	41.21	1	DXH2	Mindanao, Br. Philippines	
7285	41.18	100	TAS	R. Ankara, Turkey	
	41.18	1		Ibadan (NBC), Nigeria	
	41.18	20/50		R. Liberty, Germany	
	41.18	7.5/100		Warsaw, Poland	
	41.18	10/100		R. Free Europe, Germany	
	41.18	0.2	CR6RP	Novo Redondo, Angola	
	41.18	10		Lusaka, Rhodesia	
7290	41.15	5		Kisumu, Kenya	
	41.15	100	DMQ7	D. Welle, Germany	
	41.15	10/100	VUD	AIR, Delhi, India	
	41.15	50		R. Sofia, Bulgaria	
	41.15	10/50		Karachi, Pakistan	
	41.15	50/60/100		R. Roma, Italy	
	41.15	10		Addis Ababa, Ethiopia	
7295	41.12	20	YDQ3	Makassar, Indonesia	
	41.12	5		R. Berlin Int., Ger. (DDR)	
	41.12	20/50		R. Liberty, Germany	
	41.12	120/240		Peking, China	
	41.12	10/100		R. Free Europe, Germany	
	41.12	10		Accra, Ghana	
7300	41.09			R. Berlin Int., Ger. (DDR)	
	41.09	10/50		Karachi, Pakistan	
	41.09			Syktyvkar, USSR	
7305	41.07	15/120		Peking, China	
	41.07	1		R. Thailand, Thailand	
7306	41.06	0.35		Pathfinders St., Poland	
				7310–9500 kc	
7315	41.01	120/240		Peking, China	
7320	40.98	15/100		BBC, London, Gt. Britain	
7324	40.96			Kansu, China	
7325	40.96	15/100		BBC, London, Gt. Britain	
	40.96	120/240		Peking, China	
7330	40.93			Dushambe, USSR	
**7335	40.90	3	CHU	Dominion Obs, Canada	
	40.90	120/240		Peking, China	
7345	40.85	100		Praha, Czechoslovakia	
7350	40.82	120/240		Peking, China	
7370	40.71	15/240		Peking, China	
7385	40.62			Sinkiang, China	
	40.62	0.35		S. Cruz de la Palma, Can. Isl.	
7390	40.60	7.5		Damascus, Syria	
**7397	40.56		GIC27	Hailsham, Gt. Britain	
7450	40.27	120/240		Peking, China	
7475	40.13			Petropavlovsk, USSR	
7480	40.08	240		Peking, China	
7500	40.00	15/100		Peking, China	
7547	39.71		ZNX32	Bridgetown, Barbados	
7540	39.80			Hanoi, Vietnam (Dem. Rep.)	
7620	39.37	15/120		Peking, China	
7650	39.33	1		Erzurum, Turkey	
7670	39.11	15		R. Sofia, Bulgaria	
7935	37.81	20	PSL	Agencia Nacional, Brazil	
7940	37.78	1.2		R. Alicante, Spain	
8215	36.52	0.2		R. Shkodra, Albania	
9009	33.03	7.5/50	4XB31	Tel Aviv, Israel	
9020	33.26	15/120		Peking, China	
9064	33.09	15/120		Peking, China	
9170	32.72	15/120		Peking, China	
9250	32.43			Alma Ata, USSR	
9295	32.28	2.5	PRN9	R.dif. Seguranca, Br.	
9340	32.12	15/120		Peking, China	
**	32.08		GIC29	Hailsham, Gt. Britain	
9360	32.04	50/100		R. Nacional, Spain	
9365	32.04			Inner Mongolia, China	
9370	32.02	100		R. Nacional, Spain	
9375	32.00			Khabarovsk, USSR	
9380	31.98			Alma Ata, USSR	
9400	31.89	5		R. Atlantico, Canary Isl.	
9410	31.88	15/100		BBC, London, Gt. Britain	
9440	31.78	1	CP39	La Cruz del Sur, Bolivia	
9457	31.73	120/240		Peking, China	
9470	31.68			Sinkiang, China	
	31.68	1	OAX8F	R. Loreto, Peru	
9472	31.67			Inner Mongolia, China	
9475	31.66	50/100		Cairo, Un. Arab. Rep.	
9480	31.65	50		Komsomolsk, USSR	
9490	31.62			R. Tibet, China	
	31.61	120/240		Peking, China	
	31.61			Baku, USSR	
9495	31.60	50/100		Cairo, Un. Arab. Rep.	
				9500–9775 kc – 31 metre band	
9500	31.58			Magadan, USSR	

kc	m	kW	Call	Stations & countries	Rem.
9500	31.58			Chinghai, China	
	31.58	0.25	OAX6H	R. Tacna, Peru	
9505	31.56	1	CR6RB	R. Cl. de Benguela, Angola	
	31.56	100		Praha, Czechoslovakia	
	31.56	5	CP38	R. Altiplano, Bolivia	
	31.56	7.5/50	PRB22	R. Record, Brazil	
	31.56	2.5		Gwelo, Rhodesia	
	31.56	50	HIUA	R. Caribe, Dom. Rep.	
	31.56	10/100		R. Belgrade, Yugoslavia	
	31.56	10/100		R. Free Europe, Germany	
	31.56	20/200		R. Japan, Japan	
	31.56	50		Sebaa-Aioun, Morocco	
9508	31.55	7.5/20		Omdurman, Sudan	
9510	31.55	15/100		BBC, London, Gt. Britain	
	31.55	1	OAX4W	R. América, Peru	
	31.55	120/240		Peking, China	
	31.55	100		Bucharest, Rumania	
	31.55	15	YVXJ	R. Barquisimeto, Venezuela	
9515	31.53	20	TAT	R. Ankara, Turkey	
	31.53	10		R. Malaya, Malaya	
	31.53	1	PRD5	R. Roquete Pinto, Br.	
	31.53	10/50		Karachi, Pakistan	
	31.53	10	XEWW	Voz de la Am. Latina, Mex.	
	31.53	50/60/100		R. Roma, Italy	
	31.53			Caltanissetta, Italy	
	31.53	1	CR6RM	Moçamedes, Angola	
	31.53	10	CXA60	R. Sarandi, Uruguay	
9520	31.51	10	VLT9	Port Moresby, New Guinea	
	31.51	50	OZF5	R. Denmark, Denmark	
	31.51	50/80	WRUL	R. New York, USA	
	31.51	1	OAX4J	R. la Cronica, Peru	
	31.51	100	DMQ9	D. Welle, Germany	
	31.51	10/100	VUD	AIR, Delhi, India	
	31.51	35/100		Tangier (VOA), Morocco	
9525	31.50	15/100		BBC, London, Gt. Britain	
	31.50	1/50	OEI49	Wien, Austria	
	31.50	35/50/100		Tangier (VOA), Morocco	
	31.50	20/200		R. Japan, Japan	
	31.50	50/250/500		Greenville, USA	
	31.50	50/100		R. Nederland, Holland	
	31.50			Alma Ata, USSR	
	31.50	7.5/100		Warsaw, Poland	
	31.50	20		Paradys, So. Africa	
9530	31.48	100		Amman, Jordan	
	31.48	10/100	VUD	AIR, Delhi, India	
	31.48	20/200		R. Japan, Japan	
	31.48	5		Dar-es-Salaam, Tanganyika	
	31.48	1	YVMZ	Maracaibo, Venezuela	
	31.48	35		Courier (VOA), Greece	
	31.48			R. Berlin Int. Germ. (DDR)	
	31.48	110		Bethany, USA	
	31.48			Minsk, USSR	
	31.48	8/100		Munich (VOA), Germany	
	31.48	1	OAX6L	R. Nac. Tacna, Peru	
	31.48	35/100		Poro (VOA), Philippines	
9535	31.46	100	HER4	Schwarzenburg, Switzerland	
9540	31.45	10/50/100		R. Australia, Australia	
	31.45	0.5	OAX8I	Iquitos, Peru	
	31.45	25/100		Vatican Radio	
	31.45	50/250/500		Greenville, USA	
	31.45	20		Elisabethville, Congo (Rep.)	
	31.45	7.5	4VC	R. Commerce, Haiti	
	31.45	7.5	ZL2	Wellington, New Zealand	
	31.45	7.5/100		Warsaw, Poland	
9545	31.43	25/100	HED5	Schwarzenburg, Switzerland	
	31.43	1/50	OEI402	Wien, Austria	
	31.43	50/200		Delano, USA	
	31.43	0.25	XEFT	La Voz de Vera Cruz, Mex.	
	31.43	0.5	OAX4K	R. Central, Peru	
	31.43	100	DMQ9	D. Welle, Germany	
	31.43	1	YSV	Voz Comercio, El Salvador	
	31.43	7.5	ZYS43	R. Emis. Paranaense, Brazil	
	31.43	8/100		Munich (VOA), Germany	
	31.43	100		Accra, Ghana	
9550	31.41	100		Praha Czechoslovakia	
	31.41	1	CE955	R. Valentin Letelier, Chile	
	31.41	120/240		Peking, China	
	31.41	20	YDQ2	Makassar, Indonesia	
	31.41	10/100	VUB	AIR, Bombay, India	
	31.41	0.2/100	LLD	R. Norway, Norway	
	31.41	2	OAX1Z	R. Nac. Tumbes, Peru	
9555	31.40	5	YSS	R. Nacional, El Salvador	
	31.40	100	ETLF	Addis Ababa, Ethiopia	
	31.40	20		Damascus, Syria	
	31.40	50/80	WRUL	R. New York, USA	
	31.40	10	CP6	R. Illimani, Bolivia	
	31.40	15/100		BBC, London, Gt. Britain	
9555	31.40	120/240		Peking, China	
	31.40			Dushambe, USSR	
	31.40	50		Baghdad, Iraq	
	31.40	1	XETT	La Hora Exacta, Mexico	
	31.40	15	OIX2	Pori, Finland	
9560	31.38	100		Allouis, France	
	31.38	100		Amman, Jordan	
	31.38	50/250/500		Greenville, USA	
	31.38			R. Berlin Int, Germany	
	31.38	100		R. Sofia, Bulgaria	
9562	31.37	40	OAX4R	R. Nacional Lima, Peru	
9565	31.37	15	ZYK3	R. Jornal do Comercio, Br.	
	31.36			Khabarovsk, USSR	
	31.36	20/50		R. Liberty, Germany	
	31.36	100		R. Habana, Cuba	
9570	31.35	1	OAX7F	R. Nac. Puno, Peru	
	31.35	1/10	YVOM	San Cristobal, Venezuela	
	31.35	10/50/100		R. Australia, Australia	
	31.35	50/250/500		Greenville, USA	
	31.35	100		Allouis, France	
	31.35	100		Bucharest, Rumania	
	31.35	15/240		Peking, China	
9575	31.33	50/60/100		R. Roma, Italy	
	31.33	10/100	VUD	AIR, Delhi, India	
	31.33	100	DMQ9	D. Welle, Germany	
	31.33	10	ZYZ27	R. Mayrink Veiga, Brazil	
9577	31.33	0.4	OAX8Q	R. Pucallpa, Peru	
9580	31.32	10/50/100		R. Australia, Australia	
	31.32	20/200		R. Japan, Japan	
	31.32			Alma Ata, USSR	
	31.32	15/100		BBC, London, Gt Britain	
	31.32	35/100		Poro (VOA), Philippines	
9585	31.30	0.75	OBX4K	R. Selecta, Peru	
	31.30	100		Allouis, France	
	31.30	50		R. Canada, Canada	
	31.30	7.5	ZYR56	R. Excelsior, Brazil	
	31.30	120/240		Peking, China	
	31.30	50	YDF6	Djakarta, Indonesia	
9590	31.28	50/100		R. Nederland, Holland	
	31.28			R. Singapore, Singapore	
	31.28	1	OAX5C	R. Ica, Peru	
	31.28	100		R. Bucharest, Rumania	
	31.28	50/200		Dixon, USA	
	31.28	120/240		Peking, Chinae	
9595	31.27	10/100		R. Free Europ, Germany	
	31.27	0.25		Grenada, Windward Isl.	
	31.27	10/50	JOZ3	Tokyo, Japan	
	31.27	10	ZYN29	R. Cult. da Bahia, Br.	
	31.27	10	CXA72	R. Monte Carlo,Uruguay	
	31.27	120/240		Peking, China	
9598	31.26	2.5	CE960	R. Pres. Balmaceda, Chile	
9600	31.25	15/100		BBC, London, Gt. Britain	
	31.25			R. Ayacucho, Peru	
	31.25	10/50/100		R. Australia, Australia	
	31.25	120/240		Peking, China	
	31.25	0.3	OAX1R	R. Talara, Peru	
	31.25	10/100	VUD	AIR, Delhi, India	
	31.25			R. Berlin Int, Germ. (DDR)	
	31.25			Tashkent, USSR	
	31.25	0.25	XEYU	Universidad Nac., Mexico	
9605	31.23	10/100		R. Free Europe, Germany	
	31.23	100	DMQ9	D. Welle, Germany	
	31.23	20/200		R. Japan, Japan	
	31.23	1	CR6RE	Malanje, Angola	
	31.23	5	CP22	Potosi, Bolivia	
9610	31.22	10	VLW/X9	Perth, Australia	
	31.22			Kiev, USSR	
	31.22	35/50/100		Tangier (VOA), USA	
	31.22	15/100		BBC, London, Gt. Britain	
	31.22	10/100	VUD	AIR, Delhi, India	
	31.22	10		Addis Ababa, Ethiopia	
	31.22	30		R. Mauritania, Mauritania	
	31.22	10	ZYC8	R. Tamoio, Brazil	
	31.22	1	OAX8C	R. Nac. Iquitos, Peru	
	31.22	0.2/100	LLG	R. Norway, Norway	
9612	31.31	1	CR6RI	R. Diamang, Angola	
9615	31.20	7.5		Dacca, Pakistan	
	31.20			R. Berlin Int, Germ. (DDR)	
	31.20	10/100	VUD	AIR, Delhi, India	
	31.20	100		R. Nacional, Spain	
	31.20	4		R. Tchad, Chad	
	31.20	15/100		BBC, London, Gt. Britain	
	31.20	3	TIRICA	Voz de la Victor, Costa Rica	
	31.20	50/250/500		Greenville, USA	
9618	31.19	0.4	OBX7E	R. El Sol, Peru	
9620	31.19	100		Allouis, France	
	31.19	15/120		Peking, China	

kc	m	kW	Call	Stations & countries	Rem.
9620	31.19			Saigon, Vietnam	
	31.19	10/100		Belgrade, Yugoslavia	
	31.19	10	ZYR96	R. 9 de Julho, Brazil	
	31.19	100		Hörby, Sweden	
	31.19	20	CXA6	S.O.D.R.E., Uruguay	
	31.19	35/50		Poro (VOA), Philippines	
9621	31.19	0.25		Ouelimane, Mozambique	
9625	31.17	1	OAX8K	R. Atlantida, Peru	
	31.17	50/200		Delano, USA	
	31.17	10/100		R. Habana, Cuba	
	31.17	50		R. Canada, Canada	
	31.17	15/100		BBC, London, Gt. Britain	
9630	31.15	50		R. Canada, Canada	
	31.15	100		Trans World Radio, Monaco	
	31.15	50/100		R. Nederland, Holland	
	31.15	20		Chiayi (BCC), Taiwan	
	31.15	50/60/100		R. Roma, Italy	
	31.15	50/100		Cairo, Un. Arab. Republic	
	31.15	1	CR6RL	R. Clube de Angola, Angola	
9635	31.14	7.5	ZYR83	R. Aparecida, Brazil	
	31.14	5	OCX4K	R. Expresso, Peru	
	31.14	50/250/500		Greenville, USA	
	31.14	0.25	4VVU	R. Lumiére, Haiti	
	31.14	7.5/50		Malolos (VOA), Philipp.	
	31.14	50		Baghdad, Iraq	
9640	31.12	100	DMQ9	Deutsche Welle, Germany	
	31.12	15/100		BBC, London, Gt. Britain	
	31.12	10		Accra, Ghana	
	31.12	50	HLK5	Seoul, Korea	
	31.12			Kiev, USSR	
	31.12		YVPG	Ecos del Torbes, Venezuela	
9645	31.10	2	TIFC	Faro del Caribe, Costa Rica	
	31.10	1	OAX1T	R. Grau, Peru	
	31.10	50		Monrovia (VOA), Liberia	
	31.10	0.2/100	LLH	R. Norway, Norway	
	31.10	7.5	ZYV40	R. Cultura de Pocos, Brazil	
	31.10	10/50		Karachi, Pakistan	
	31.10	25/100		Vatican Radio	
	31.10	15/100		BBC, London, Gt. Britain	
9650	31.09	110		Bethany, USA	
	31.09	15/100		BBC, London, Gt. Britain	
	31.09	50		Conakry, Guinea	
	31.09			Khabarovsk, USSR	
	31.09	1	CE965	R. Yungay, Chile	
	31.09	20		Paradys, So. Africa	
	31.09			Komsomolsk, USSR	
	31.09	7.5/20		BBC, Cyprus	
	31.09	100		Honolulu (VOA), Hawaii	
	31.09	120/240		Peking, China	
9655	31.07	10/100		R. Free Europe, Germany	
	31.07	35/50		Malolos (VOA), Philippines	
	31.07	10/100		R. Habana, Cuba	
	31.07	20		Taipei (BCC), Taiwan	
	31.07	100	HED6	Schwarzenburg, Switzerland	
	31.07	10		Kaduna (NBC), Nigeria	
9660	31.06	7	LRX	R. El Mundo, Argentina	
	31.06	20/50		R. Liberty, Germany	
	31.06	100		Hörby, Sweden	
	31.06	10	VLQ9	Brisbane, Australia	
	31.06	15/100		BBC, London, Gt. Britain	
9665	31.04	1	CR6RD	Nova Lisboa, Angola	
	31.04	50/100		Cairo, Un. Arab. Rep.	
	31.04			R. Rio, Brazil	
	31.04	120/240		Peking, China	
	31.04	100	HEU3	Schwarzenburg, Switzerland	
	31.04	50/200		Dixon, USA	
	31.04	10	PRL8	R. Nac. Brasilia, Brazil	
	31.04	1	OAX8U	R. Eco, Peru	
9667	31.03	100		Colombo, Ceylon	
9670	31.02	5	TGNB	R. Cultural, Guatemala	
	31.02			Hue, Vietnam	
	31.02	50		Riyadh, Saudi Arabia	
	31.02			Kiev, USSR	
	31.02	100	CSA24	R. Nacional, Portugal	
	31.02	10/100		R. Free Europe, Germany	
	31.02	50/250/500		Greenville, USA	
	31.02	15/120		Peking, China	
9675	31.01	10	ZYT29	R. Diario da Manha, Brazil	
	31.01	100		R. Habana, Cuba	
	31.01	20/50		R. Liberty, Germany	
	31.01	1	CR6SG	R. Clube Huila, Angola	
	31.01	7.5/100		Warsaw, Poland	
	31.01	0.25	OCX4W	R. Inca, Peru	
	31.01	20/200		R. Japan, Japan	
	31.01	25/100		Vatican Radio	
	31.01	5		R. Somali, Somali	
	31.01	15/100		BBC, London, Gt. Britain	

kc	m	kW	Call	Stations & countries	Rem.
9675	31.01	7	OAZ4L	R. del Pacifico, Peru	
9680	30.99	10	VLH/R9	Melbourne, Australia	
	30.99	100	CSA25	R. Nacional, Portugal	
	30.99	20/50		R. Liberty, Germany	
	30.99	10/50		Karachi, Pakistan	
	30.99	10/100	VUD	AIR, Delhi, India	
9685	30.98	1	HOF31	Onda Popular, Panama	
	30.98	10	ZYR227	R. Gazeta, Brazil	
	30.98	20/50		R. Liberty, Germany	
	30.98	20		Taipei (BCC), Taiwan	
	30.98	100	DMQ9	D. Welle, Germany	
	30.98	50		Algier 2, Algeria	
	30.98			Erevan, USSR	
9690	30.96	100	LRA32	R. Nacional, Argentina	
	30.96	10		Lagos, Nigeria	
	30.96	50		R. St. KGEI, USA	
	30.96	15/100		BBC, London, Gt. Britain	
	30.96	7.5/100		BBC, Singapore	
	30.96	10/100	VUD	AIR, Delhi, India	
	30.96			Taipei (BCC), Taiwan	
	30.96	100		Trans World Radio, Monaco	
	30.96	120/240		Peking, China	
9695	30.94	10/100		R. Free Europe, Germany	
	30.94	40		R. Nacional, Spain	
	30.94	7.5	ZYB22	R. Rio Mar, Brazil	
	30.94	0.25	ZK3	Rarotonga, Cook Isl.	
	30.94	50/80	WRUL	R. New York, USA	
	30.94	50		R. Cambodge, Cambodia	
	30.94	20/200		R. Japan, Japan	
	30.94	1	OCX4Y	R. Continente, Peru	
9700	30.93	120		R. Sofia, Bulgaria	
	30.93	50/250/500		Greenville, USA	
	30.93	50/200		Delano, USA	
	30.93	15/100		BBC, London, Gt. Britain	
	30.93	10	CE970	La Voz de Chile, Chile	
	30.93	35/50		Poro (VOA), Philippines	
9705	30.91	50		R. Kabul, Afghanistan	
	30.91	20/100	ORU	Wavre, Belgium	
	30.91	15/100		BBC, London, Gt. Britain	
	30.91	100	ETLF	Addis Ababa, Ethiopia	
	30.91	20/200		R. Japan, Japan	
	30.91	10	ZYZ24	R. Maua, Brazil	
	30.91	10/100	VUD	AIR, Delhi, India	
	30.91	10/100		R. Free Europe, Germany	
9710	30.90	50	YDF6	Djakarta, Indonesia	
	30.90	50/80	WRUL	R. New York, USA	
	30.90	35		Thessaloniki (VOA), Greece	
	30.90			Kiev, USSR	
	30.90	15/100		BBC, London, Gt. Britain	
	30.90	50/60/100		R. Roma, Italy	
	30.90	10		Forest Side, Mauritius	
	30.90	1	OAX9D	R. Tropical, Peru	
	30.90	10/100		R. Free Europe, Germany	
	30.90	15/120		Peking, China	
	30.90	7	LRX2	R. El Mundo, Argentina	
9715	30.88	50/100		R. Nederland, Holland	
	30.88	2/10	DZH7	Call of the Orient, Phil. Isl.	
	30.88	20/100		ORU Wavre, Belgium	
	30.88	20		R. Tirana, Albania	
	30.88	50/100		Cairo, Un. Arab Republic	
	30.88	10/100		R. Free Europe, Germany	
	30.88	35		Thessaloniki (VOA), Greece	
	30.88	50		R. Congo, Congo	
	30.88	1	CP21	R. La Plata, Bolivia	
	30.88	15/120		Peking, China	
9720	30.86	50	PRL7	R. Nacional R. de Jan. Br.	
	30.86			Nhatrang, Vietnam	
	30.86	50		Taipei (BCC), Taiwan	
	30.86	25/100		Dakar, Senegal	
	30.86	50/250/500		Greenville, USA	
	30.86	35		Colombo, Ceylon	
	30.86	20/50		R. Liberty, Germany	
	30.86	50		Monrovia (VOA), Liberia	
	30.86	20		Paradys, So. Africa	
	30.86	10/100		R. Free Europe, Germany	
9725	30.85	15/100		BBC, London, Gt. Britain	
	30.85	7.5/100		BBC, Singapore	
	30.85	50/250/500		Greenville, USA	
	30.85	10/100		R. Free Europe, Germany	
	30.85	20	4XB51	Tel Aviv, Israel	
	30.85			Komsomolsk, USSR	
	30.85	100		R. Berlin Int, Germ. (DDR)	
9730	30.83	50		Leipzig, Germany (DDR)	
	30.83			R. Berlin Int, Germ. (DDR)	
	30.83	100	ETLF	Addis Ababa, Ethiopia	
	30.83	7.5	ZYU59	R. Soc. Farroupilha, Brazil	
	30.83	50/100		R. Nederland, Holland	

kc	m	kW	Call	Stations & countries	Rem.
9730	30.83	1.5		R. Brazzaville, Congo	
9735	30.82	15/100		BBC, London, Gt. Britain	
	30.82	15/120		Peking, China	
	30.82	50/200		Delano, USA	
	30.82	100	DMQ9	Deutsche Welle, Germany	
9740	30.80	10/50		Karachi, Pakistan	
	30.80	100		Amman, Jordan	
	30.80	50		Bound Brook, USA	
	30.80	15/100		BBC, London, Gt. Britain	
	30.80	100	CSA27	R. Nacional, Portugal	
	30.80	25/100		Vatican Radio	
	30.80	35/50/100		Tangier (VOA), Morocco	
	30.80	10/100	VUD	AIR, Delhi, India	
	30.80	20/200		R. Japan, Japan	
	30.80	20	LRS1	R. Splendid, Argentina	
9745	30.78	20/100	ORU	Wavre, Belgium	
	30.78	20	TAP	R. Ankara, Turkey	
	30.78	5		Kotabaru, Indonesia	
	30.78	3.5	BEC62	Air Force St, Taiwan	
	30.78	50/100		R. Nederland, Holland	
	30.79	10/100	VUD	AIR, Delhi, India	
	30.78	1/30	HCJB	Voz de los Andes, Ecuador	
	30.78	7.5	ZYR57	R. Cultura, Brazil	
	30.78	4		R. Mali, Mali	
9750	30.77	10/100		R. Free Europe, Germany	
	30.77	7.5/10		Dacca, Pakistan	
	30.77	15/100		BBC, London, Gt. Britain	
	30.77			Khabarovsk, USSR	
	30.77	50/100		Cairo, Un. Arab Rep.	
	30.77	10/50		Karachi, Pakistan	
9752	30.77			Pyongyang, Korea (Dem. R.)	
9755	30.76	100		Allouis, France	
	30.76	1	ZYW23	R. Anhanguera, Brazil	
	30.75	15/100		BBC, London, Gt. Britain	
	30.76	120/240		Peking, China	
	30.76	50/100		Cairo, Un. Arab Rep.	
9760	30.74	15/100		BBC, London, Gt. Britain	
	30.74			R. Hanoi, Vietnam (Dem. R.)	
	30.74	0.3		Diyarbakir, Turkey	
	30.74	10	TGWA	Voz de Guatemala, G.	
	30.74	35/100		Tangier (VOA), Morocco	
9765	30.72	15/120		Peking, China	
	30.72	20/200		R. Japan, Japan	
	30.72	10/100		R. Habana, Cuba	
	30.72	15/100		BBC, London, Gt. Britain	
	30.72	1	CR6RZ	R. Angola, Angola	
	30.72	10/100	VUD	AIR, Delhi, India	
9770	30.71	15/100		BBC, London, Gt. Britain	
	30.71	1/50	OEI47	Wien, Austria	
	30.71	1	PRL4	R.dif. Educacão, Brazil	
	30.71	20	YDB4	Djakarta, Indonesia	
	30.71	0.3		Iskenderun, Turkey	
	30.71	1	OAX8O	R. Amazonas, Peru	
	30.71	110		Bethany, USA	
	30.71	0.4	4VEH	R. St. 4VEH, Haiti	
				9775–11700kc	
9775	30.69	50/100		Cairo, Un. Arab Rep.	
	30.69	120/240		Peking, China	
	30.69	7.5	ZYY29	R. Brasil Central, Brazil	
9780	30.67	50/100		Cairo, Un. Arab Rep.	
9785	30.66	120/240		Peking, China	
	30.66	50/100		Cairo, Un. Arab Rep.	
	30.66			Baku, USSR	
9790	30.64			Khabarovsk, USSR	
9795	30.63	100		Praha, Czechoslovakia	
9800	30.61	120/240		Peking, China	
9825	30.53	15/100		BBC, London, Gt. Britain	
9833	30.51	100		Budapest, Hungary	
9840	30.49			Baku, USSR	
	30.49			Hanoi, Vietnam (Dem. R.)	
9860	30.43	15/240		Peking, China	
9880	30.36	120/240		Peking, China	
9905	30.29			Khabarovsk, USSR	
9915	30.26	10/100	VUD	AIR, Delhi, India	
	30.26	15/100		BBC, London, Gt. Britain	
9920	30.24	15/240		Peking, China	
9945	30.17	15/240		Peking, China	
9965	30.11	120/240		Peking, China	
9972	30.08	12/120		Peking, China	
9990	30.02			Yunnan, China	
*10000	30.00	2	WWVH	Puunene, Hawaii	
*	30.00	0.5	MSF	Teddington, Gt. Britain	
*	30.00	2	JJY	Tokyo, Japan	
*	30.00	9	WWV	Lanham, USA	
*	30.00	20	RWM	Moscow, USSR	
*	30.00		BPV	Peking, China	
*	30.00	2	LOL	Buenos Aires, Argentina	

kc	m	kW	Call	Stations & countries	Rem.
*10000	30.00	0.25	ZUO	Johannesburg, So. Africa	
*	30.00	2	ATA	New Delhi, India	
10220	29.35	20	PSH	Agencia Nacional, Brazil	
10245	29.28			Sinkiang, China	
10260	29.24	15/120		Peking, China	
**10331	29.05		GPB30B	Hailsham, Gt. Britain	
**10332	29.04		GPB30A	Hailsham, Gt. Britain	
10335	29.03	10/100	VUD	AIR, Delhi, India	
10530	28.50			Alma Ata, USSR	
10885	27.60	25		Ulan Bator, Mongolia	
10988	27.30	0.3		Damascus, Syria	
11015	27.25		ZNX49	Bridgetown, Barbados	
11040	27.17			Inner Mongolia, China	
11100	27.03	15/120		Peking, China	
11290	26.57	15/120		Peking, China	
11330	26.47	15/120		Peking, China	
11445	26.21	120/240		Peking, China	
11455	26.19	15/120		Peking, China	
11505	26.08	120/240		Peking, China	
11515	26.00	15/120		Peking, China	
11630	25.79	15/120		Peking, China	
	25.79	7.5/10		Dacca, Pakistan	
11650	25.75	120/240		Peking, China	
11660	25.73	15/120		Peking, China	
11668	25.71	10/50		Karachi, Pakistan	
11672	25.70	10/50		Karachi, Pakistan	
11675	25.70	15/240		Peking, China	
11685	25.67	120/240		Peking, China	
11690	25.66	15/240		Peking, China	
11695	25.65			R. Tashkent USSR	
				11700–11975 kc – 25 metre band	
11700	25.64	1	TGQB	R. Nacional, Guatemala	
11705	25.63	20/200		R. Japan, Japan	
	25.63	100		Hörby, Sweden	
	25.63	15/100		BBC, London, Gt. Britain	
11710	25.62	10/50/100		R. Australia, Australia	
	25.62	15/100		BBC, London, Gt. Britain	
	25.62	100		R. Nacional, Argentina	
	25.62	110		Bethany, USA	
	25.62	50		R. Brazzaville, Congo	
	25.62	10/100	VUD	AIR, Delhi, India	
	25.62	50/100		R. Nederland, Holland	
11715	25.61	100	DMQ11	Deutsche Welle, Germany	
	24.61	100	HEI5	Schwarzenburg, Switzerland	
	25.61	100	YDF2	Djakarta, Indonesia	
	25.61	120/240		Peking, China	
	25.61	100		Beyruth, Lebanon	
	25.61	10/100	VUD	AIR, Delhi, India	
11720	25.60	50		R. Canada, Canada	
	25.60	7.5/20		BBC, Cyprus	
	25.60	10/100	VUD	AIR, Delhi, India	
	25.60	35/50/100		Tangier (VOA), Morocco	
	25.60	15/100		BBC, London, Gt. Britain	
	25.60	10	PRL8	R. Nac. Brasilia, Brazil	
11725	25.59	100		Praha, Czechoslovakia	
	25.59	15/120		Peking, China	
	25.59	20		Taipei (BCC), Taiwan	
	25.58	20/50		R. Liberty, Germany	
	25.58	10/100		R. Free Europe, Germany	
	25.58	20/200		R. Japan, Japan	
	25.58	50		R. Brazzaville, Congo	
	25.59	7.5/100		BBC, Singapore	
11730	25.58	120/240		Peking, China	
	25.58	110		Bethany, USA	
	25.58	50/100		R. Nederland, Holland	
	25.58			Petropavlovsk, USSR	
	25.57	100		Trans World Radio, Monaco	
11735	25.56	10/100	LKQ	R. Norway, Norway	
	25.56	10/100		R. Belgrade, Yugoslavia	
	25.56	5	CXA7	R. Oriental, Uruguay	
	25.56	10/100		R. Free Europe, Germany	
	25.56	7.5	ZYW28	R. Cl. de Goiania, Brazil	
	25.56	50		Tangier, Morocco	
11740	25.55	10/50/100		R. Australia, Australia	
	25.55	35/50/100		Tangier (VOA), Morocco	
	25.55	5	CE1174	R. Nuevo Mundo, Chile	
	25.55	25/100		Vatican Radio	
	25.55	120/240		Peking, China	
	25.55	50/200		Delano, USA	
	25.55	2		Call of the Orient, Philipp.	
11745	25.54	10/100		R. Free Europe, Germany	
	25.54	50/100		Cairo, Un. Arab. Republic	
	25.54	10	ZYR65	R. Piratininga, Brazil	
11750	25.53	15/100		BBC, London, Gt. Britain	
	25.53	0.5	TGRA	R. Modelo, Guatemala	
	25.53	7.5/100		BBC, Singapore	
	25.53	1/10		Tokyo (FEN), Japan	

kc	m	kW	Call	Stations & countries	Rem.
11750	25.53	120/240		Peking, China	
	25.53	0.3		Damascus, Syria	
11755	25.52	10/100		R. Free Europe, Germany	
	25.52			Komsomolsk, USSR	
	25.52	1	CR6RB	R. Ecclesia, Angola	
	25.52	50/100		R. Nederland, Holland	
	25.52	50		Rdif.Congolaise,Congo(Rep.)	
11760	25.51	10/50/100		R. Australia, Australia	
	25.51	50		R. Canada, Canada	
	25.51	10/100		R. Free Europe, Germany	
	25.61			Hanoi, Vietnam (Dem. Rep.)	
	25.51	10		Addis Ababa, Ethiopia	
	25.51	10/100		R. Habana, Cuba	
	25.51	0.25	ZK4	R. Rarotonga, Cook Isl.	
	25.51	7.5		R. Clube de Mozambique	
11765	25.50	25	ZYB8	R. Tupi São Paulo, Brazil	
	25.50	10	CP39	La Cruz del Sur, Bolivia	
	25.50	20/50		R. Liberty, Germany	
	25.50			R. Berlin Int, Germany	
	25.50	3	HCVP2	R. Atalaya, Ecuador	
11770	25.49	15/100		BBC, London, Gt. Britain	
	25.49	50		Monrovia (VOA), Liberia	
	25.49	35/100		Poro (VOA), Philipp.	
	25.49	7.5	YDE	Djakarta, Indonesia	
	25.49	20/100	VUD	AIR, Delhi, India	
	25.49	50/200		Delano, USA	
	25.49	10/100		R. Habana, Cuba	
11775	25.48	50/200		Delano, USA	
	25.48	10/100		R. Free Europe, Germany	
	25.48	50/250/500		Greenville, USA	
	25.48	10	ZYZ28	R. Mayrink Veiga, Brazil	
11780	25.47	20/200		R. Japan, Japan	
	25.47	20	TFJ	Reykjavik, Iceland	
	25.47	7.5	ZL3	Wellington, New Zealand	
	25.47	7	LRY2	R. Belgrano, Argentina	
	25.47	50/100		R. Nederland, Holland	
	25.47	15/100		BBC, London, Gt. Britain	
	25.47	120/240		Peking, China	
11783	25.46	50		Komsomolsk, USSR	
11785	25.46			Kiev, USSR	
	25.46	100	DMQ11	Deutsche Welle, Germany	
	25.46	1/50	OEI52	Wien, Austria	
	25.46	7.5	ZYU61	R. Guaiba, Brazil	
	25.46	10/100	VUD	AIR, Delhi, India	
	25.46	100	YDF2	Djakarta, Indonesia	
	25.46	7.5/50		Malolos (VOA), Philipp.	
11790	25.45	15/100		BBC, London, Gt. Britain	
	25.45	110		Bethany, USA	
	25.45	10/100	VUD	AIR, Delhi, India	
	25.45	10/50/100		R. Australia, Australia	
11795	25.43	100	DMQ11	Deutsche Welle, Germany	
	25.43			R. Berlin Int, Germ. (DDR)	
	25.43	10		R. Nacional, Rio de Jan., Br.	
	25.43	50		Rdif.Congolaise,Congo(Rep.)	
	25.43	20	YDF3	Djakarta, Indonesia	
11800	25.42	7.5/100		Warsaw, Poland	
	25.42	7.5		R. Americas, Swan Isl.	
	25.42	35		Colombo, Ceylon	
	25.42	10/100		R. Habana, Cuba	
	25.42	1	CE1180	Soc. Nac. de Agricult., Chile	
	25.42	15/100		BBC, London, Gt. Britain	
	25.42	120/240		Peking, China	
	25.42	100		Accra, Ghana	
	25.42	10/100	VUD	AIR, Delhi, India	
	25.42	50/100		R. Nederland, Holland	
	25.42	20/200		R. Japan, Japan	
11805	25.41	50/60/100		R. Roma, Italy	
	25.41	50/250	500	Greenville, USA	
	25.41	100		Hörby, Sweden	
	25.41	10/100		R. Free Europe, Germany	
	25.41	10	ZYZ36	R. Globo, Brazil	
	25.40	10	OIX8	Pori, Finland	
11810	25.40	10/50/100		R. Australia, Australia	
	25.40	100		Hörby, Sweden	
	25.40	10/100	VUD	AIR, Delhi, India	
	25.40	50/60/100		R. Roma, Italy	
	25.40	100		Bucharest, Rumania	
	25.40	5		Amman, Jordan	
11815	25.39	10/100		R. Free Europe, Germany	
	25.39	20/200		R. Japan, Japan	
	25.39	100		R. Nacional, Spain	
	25.39	7.5	ZYW24	R. Brazil Central, Brazil	
11820	25.38	15/100		BBC, London, Gt. Britain	
	25.38	7.5/100		BBC, Singapore	
	25.38	10/100		R. Free Europe, Germany	
	25.38	10/100	VUD	AIR, Delhi, India	
	25.38	100		R. Abidjan, Ivory Coast	

kc	m	kW	Call	Stations & countries	Rem.
11820	25.38	120/240		Peking, China	
	25.38	0.15	XEBR	El Heraldo de Sonora, Mex.	
11825	25.37	50		R. Televisora Nac., Colombia	
	25.37	50	WINB	Red Lion, USA	
	25.37	15	ZYK32	R. Jornal do Comercio, Br.	
	25.37	10/100	VUD	AIR, Delhi, India	
	25.37	50		Taipei (BCC), Taiwan	
	25.37	4		Papéete, Tahiti	
	25.37	20/50		R. Liberty, Germany	
11830	25.36	50/250/500		Greenville, USA	
	25.36	50		R.dif.Congolaise,Congo(Rep)	
	25.36	8/100		Munich (VOA), Germany	
	25.36	10/100	VUD	AIR, Delhi, India	
	25.36	35/50/100		Tangier (VOA), Morocco	
	25.36	10/100		R. Free Europe, Germany	
11835	25.35	5	CXA19	El Espectador, Uruguay	
	25.35	5/100		R. Cl. de Mozambique	
	25.35	35		Colombo (VOA), Ceylon	
	25.35	50		Algier I, Algeria	
	25.35	10/100	VUD	AIR, Delhi, India	
	25.35	2.5	4VEJ	R. St. 4VEH, Haiti	
11840	25.34	100	CSA31	R. Nacional, Portugal	
	25.34	10/50/100		R. Australia, Australia	
	25.34	15/100		BBC, London, Gt. Britain	
	25.34			Khabarovsk, USSR	
	25.34	10/100		R. Habana, Cuba	
	25.34			Hanoi, Vietnam (Dem. R.)	
	25.34	7.5/100		Warsaw, Poland	
11845	25.33	100		Allouis, France	
	25.33	10/50		Karachi, Pakistan	
	25.33	50/200		Dixon, USA	
11850	25.32	10/100	VUD	AIR, Delhi, India	
	25.32	4/50	DZH8	Call of the Orient, Philipp.	
	25.32	3	ZPA3	R. Teleco, Paraguay	
	25.32	20/100	ORU	Wavre, Belgium	
	25.32	10/100	LLK	R. Norway, Norway	
	25.32	2.5	CE1185	R. Cruz del Sur, Chile	
	25.32	100		R. Sofia, Bulgaria	
11855	25.31	10/100		R. Free Europe, Germany	
	25.31	20/200		R. Japan, Japan	
	25.31	110		Bethany, USA	
	25.31	7.5/20		Omdurman, Sudan	
	25.31	10		R. Paranaense, Brazil	
	25.31	50		Komsomolsk, USSR	
11860	25.30	15/100		BBC, London, Gt. Britain	
	25.30	15/240		Peking, China	
	25.30	20/50		R. Liberty, Germany	
	25.30	50		Taipei (BCC), Taiwan	
11865	25.28	100	HER5	Schwarzenburg, Switzerland	
	25.28	7.5	PRA8	R. Cl. de Pernambuco, Brazil	
	25.28	100		R.dif.Congolaise,Congo(Rep)	
	25.28	20/200		R. Japan, Japan	
	25.28	10/100		R. Habana, Cuba	
11870	25.27	100		Amman, Jordan	
	25.27	35/50/100		Tangier (VOA), Morocco	
	25.27			Elisabethville, Congo (Rep.)	
	25.27	50/200		Delano, USA	
11875	25.26	35/100		Tangier (VOA), Morocco	
	25.26	10/100	CSA58	R. Nacional, Portugal	
	25.26	10	ZYN32	R. Soc. Bahia, Br.	
	25.26	10/50		Karachi, Pakistan	
	25.26	50		Bound Brook, USA	
	25.26	20/200		R. Japan, Japan	
	25.26	10/100	VUD	AIR, Delhi, India	
11880	25.25	1	LRS	R. Splendid, Argentina	
	25.25	10	VLH11	Melbourne, Australia	
	25.25	25/100		Vatican Radio	
	25.25	10/50/100		R. Australia, Australia	
	25.25	15/100		BBC, London, Gt. Britain	
	25.25	5	XEHH	R. dif. Comerciales, Mexico	
11885	25.24	10/100		R. Free Europe, Germany	
	25.24	100		Allouis, France	
	25.24	10	ZYZ52	R. Mauá, Brazil	
	25.24	10/50		Karachi, Pakistan	
	25.24	120/240		Peking, China	
	25.24	10	CXA68	R. Sarandi, Uruguay	
11890	25.23	15/100		BBC, London, Gt. Britain	
	25.23	50/250/500		Greenville, USA	
	25.23	10/100	VUD	AIR, Delhi, India	
11895	25.22	10/100		R. Free Europe, Germany	
	25.22	35		Thessaloniki (VOA), Greece	
	25.22	35/100		Poro (VOA), Philippines	
11900	25.21	20		Paradys, So. Africa	
	25.21	10/100		R. Habana, Cuba	
	25.21	100		Bucharest, Rumania	
	25.21	10		R. Malaya, Malaya	
	25.21	10/100	VUD	AIR, Delhi, India	

kc	m	kW	Call	Stations & countries	Rem.
11900	25.21	20	CXA10	S.O.D.R.E., Uruguay	
	25.21	5	CE1190	La Voz de Chile, Chile	
11905	25.20	100		Praha, Czechoslovakia	
	25.21	20		Taipei (BCC), Taiwan	
	25.20	50/60/100		R. Roma, Italy	
	25.20	15/100		BBC, London, Gt. Britain	
11910	25.19	15/100		BBC, London, Gt. Britain	
	25.19	35/50/100		Tangier (VOA), Morocco	
	25.19	50/100		Cairo, Un. Arab. Rep.	
	25.19	100		R. Budapest, Hungary	
	25.19	50	HSK9	R. Thailand, Thailand	
	25.19	15/240		Peking, China	
	25.19	50		Bound Brook, USA	
	25.19	10/50		Karachi, Pakistan	
11915	25.18	30	HCJB	Voz de los Andes, Ecuador	
	25.18	100		R. Budapest, Hungary	
	25.18			Dushambe, USSR	
	25.18	50		Damascus, Syria	
	25.18	10/100		R. Free Europe, Germany	
	25.18	50/100		R. Nederland, Holland	
	25.18	100	CSA30	R. Nacional, Portugal	
	25.18	7.5	PRC20	R. Soc. Gaucha, Brazil	
	25.18	50/100		Cairo, Un. Arab. Republic	
11920	25.17	100		Allouis, France	
	25.17	35		Colombo (VOA), Ceylon	
	25.17			Saigon, Vietnam (Rep.)	
	25.17	15/100		BBC, London, Gt. Britain	
	25.17	50/4	DZF2	Call of the Orient, Philipp.	
	25.17	10/100	VUD	AIR, Delhi, India	
11925	25.16	10	ZYR78	R. Bandeirantes, Brazil	
	25.16	15/120		Peking, China	
	25.16	100	DMQ11	Deutsche Welle, Germany	
	25.16			Tashkent, USSR	
	25.16	50	HLK6	Seoul, Korea	
	25.16	1	CR6RD	Nova Lisboa, Angola	
	25.16	100	CSA71	R. Nacional, Portugal	
	25.16	25/100		Vatican Radio	
11930	25.15	15/100		BBC, London, Gt. Britain	
	25.15	100	DMQ11	D. Welle, Germany	
	25.15	50/100		Cairo, Un. Arab. Republic	
	25.15			Kiev, USSR	
	25.15	10/100		R. Free Europe, Germany	
11935	25.14	15/120		Peking, China	
	25.14	100	CSA72	R. Nacional, Portugal	
	25.14	7.5	ZYS35	R. Cl. Paranaense, Br.	
	25.14	50/100		R. Nederland, Holland	
	25.14	20/50		R. Liberty, Germany	
11940	25.13	10/100		R. Free Europe, Germany	
	25.13			R. Singapore, Singapore	
	25.13	50		R. Cambodge, Cambodia	
	25.13	50/250/500		Greenville, USA	
	25.13	50/100		Cairo, Un. Arab. Republic	
	25.13	20/200		R. Japan, Japan	
	25.13	10/50		R. Kuwait, Kuwait	
11945	25.12	5	ZPA5	R. Encarnación, Paraguay	
	25.12	15/100		BBC, London, Gt. Britain	
	25.12	100	DMQ11	Deutsche Welle, Germany	
	25.12	120/240		Peking, China	
11950	25.10	50/100		R. Nederland, Holland	
	25.10		WRUL	R. New York, USA	
	25.10			Saigon, Vietnam (Rep.)	
	25.10	10		Jeddah, Saudi Arabia	
	25.10	7.5	PRL3	R. Dif. Educação, Brazil	
	25.10	50	HLK55	Seoul, Korea	
	25.10	50		R. Brazzaville, Congo	
11955	25.09	10/50/100		R. Australia, Australia	
	25.09	15/100		BBC, London, Gt. Britain	
	25.09	7.5/100		BBC, Singapore	
	25.09	50/100		R. Nederland, Holland	
	25.09	120/240		Peking, China	
	25.09	7.5/100		Warsaw, Poland	
11960	25.08	35/100		Okinawa (VOA), Ryukyu Isl.	
	25.08	2.5	CE1196	Soc. Nac. de Mineria, Chile	
11965	25.07	50	PRB24	R. Record, Brazil	
	25.07	120/240		Peking, China	
	25.07	100		Conakry, Guinea (Rep.)	
	25.07	20/50		R. Liberty, Germany	
11970	25.06	4		R. Brazzaville, Congo	
	25.06	50		Bound Brook, USA	
	25.06	100		Amman, Jordan	
	25.06	20/50		R. Liberty, Germany	
	25.06	20		Chiayi (BCC), Taiwan	
	25.06	100		R. Habana, Cuba	
	25.06	50		R. Tunis, Tunisia	
11975	25.05	120/240		Peking, China	
	25.05	10/50		ELWA, Liberia	
11980	25.04	120/240		Peking, China	
11980	25.04	50		Komsomolsk, USSR	
11985	25.03	50/100		Cairo, Un. Arab. Rep.	
11990	25.02	100		Praha, Czechoslovakia	
				11995–15100 kc	
11995	25.01	100	CSA32	R. Nacional, Portugal	
12010	24.98	120/240		Peking, China	
12040	24.92	15/100		BBC, London, Gt. Britain	
12050	24.90	50/100		Cairo, Un. Arab. Republic	
	24.89	120/240		Peking, China	
12058	24.88	2	PRB25	Agencia Nac., Brazil	
12080	24.82	100		R. Nacional, Portugal	
12095	24.80	15/100		BBC, London, Gt. Britain	
12620	24.00			Hanoi, Vietnam (Dem. Rep.)	
**12790	23.50		GKU5	Hailsham, Gt. Britain	
**13555	22.15		GIC33	Hailsham, Gt. Britain	
13750	21.82			Khabarovsk, USSR	
**14670	20.45	3	CHU	Dom, Observatory, Canada	
14690	20.45	20	PSF	Agencia Nac., Brazil	
*15000	20.00	2	WWVH	Puunene, Hawaii	
*	20.00	9	WWV	Lanham, USA	
*	20.00	2	JJY	Tokyo, Japan	
*	20.00	2	LOL	Buenos Aires, Argentina	
*	20.00		BPV	Peking, China	
*	20.00	2	RWM	Moscow, USSR	
15030	19.96	15/240		Peking, China	
15050	19.93	100	CSA75	R. Nacional, Portugal	
15060	19.92	120/240		Peking, China	
15070	19.91	15/100		BBC, London, Gt. Britain	
15085	19.89	120/240		Peking, China	
	19.89	5		Grenada, Windw. Isl.	
15095	19.87	120/240		Peking, China	
				15100–15450 kc (19 m.b.)	
15100	19.87			Hanoi, Vietnam (Dem. Rep.)	
	19.87	100	CSA39	R. Nacional, Portugal	
15105	19.86	20/200		R. Japan, Japan	
	19.86	10/100	VUD	AIR, Delhi, India	
	19.86	15/100		BBC, London, Gt. Britain	
	19.86	7.5	ZYZ32	R. Rural Brasileira, Brazil	
15110	19.85	15/100		BBC, London, Gt. Britain	
	19.85	7.5	ZL21	R. New Zealand, N.Z.	
	19.85	1	XERR	R. dif. Comerciales, Mexico	
15115	19.85	1/30	HCJB	Voz de los Andes, Ecuador	
	19.85	7.5		R. Soc. Guaicara, Brazil	
	19.85	20/200		R. Japan, Japan	
	19.85	10/100		R. Free Europe, Germany	
	19.85	50/100		Cairo, Un. Arab. Republic	
	19.85	120/240		Peking, China	
	19.85	35/50/100		Tangier (VOA), Morocco	
15120	19.84	50/60/100		R. Roma, Italy	
	19.84	25/100		Vatican Radio	
15125	19.83	100	CSA64	R. Nacional, Portugal	
	19.83	10	ZYN31	R. Soc. Bahia, Brazil	
	19.83	50	HLK41	Seoul, Korea	
15130	19.83	10/100	VUD	AIR, Delhi, India	
	19.83	50/250/500		Greenville, USA	
15135	19.82	20/200		R. Japan, Japan	
	19.82	35/50/100		Tangier (VOA), Morocco	
	19.82	100		R. Habana, Cuba	
	19.82	50		R. Kabul, Afghanistan	
	19.82	10	PRB23	R. Panamericana, Brazil	
	19.82	10/100		R. Free Europe, Germany	
15140	19.82	15/100		BBC, London, Gt. Britain	
	19.82			Petropavlovsk, USSR	
	19.82	120/240		Peking, China	
15145	19.81	10/100		R. Free Europe, Germany	
	19.81	15	ZYK33	R. Jornal do Comercio, Br.	
15148	19.80	5	CE1515	Corp. Chilena Broadc., Chile	
15150	19.80	120/240		Peking, China	
	19.80	10/50		R. Kuwait, Kuwait	
	19.80	7.5/100	YDC	Djakarta, Indonesia	
	19.80	40	OAX4T	R. Nacional, Lima, Peru	
	19.80	35/100		Tangier (VOA), Morocco	
	19.80	50/200		Dixon, USA	
15155	19.80	25	ZYB9	R.dif. de São Paulo, Brazil	
	19.80	10/100	VUD	AIR, Delhi, India	
	19.80	20		Paradys, So. Africa	
	19.80	50		ELWA, Liberia	
	19.80	35/50		Poro (VOA), Philippines	
	19.80	7.5/50		Malolos (VOA), Philipp.	
15160	19.79	100	TAU	R. Ankara, Turkey	
	19.79	50/250/500		Greenville, USA	
	19.79	10	XEWW	Voz de la Amer, Latina, Mex.	
	19.79	100		Allouis, France	
15165	19.78	50	OZF7	R. Denmark, Denmark	
	19.78	5	ZYN7	R. Cl. Ceará, Brazil	
	19.79	50		Damascus, Syria	
15170	19.78	10/100	LKV	R. Norway, Norway	

kc	m	kW	Call	Stations & countries	Rem.
15070	19.78	10/100	VUD	AIR, Delhi, India	
	19.78	100		Amman, Jordan	
	19.78	10	E100	R. Free Europe, Germany	
15172	19.77	7.5/20		Omdurman, Sudan	
15175	19.77	10/100	LLM	R. Norway, Norway	
	19.77	7.5		Em. Riograndense, Brazil	
	19.77	20/200		R. Japan, Japan	
	19.77	1	BEH22	Fu Hsing, Taiwan	
	19.77	15/120		Peking, China	
15180	19.76	15/100		BBC, London, Gt. Britain	
	19.76	0.5	OBX4C	R. El Sol, Peru	
	19.76	10/50/100		R. Australia, Australia	
15185	19.76	10/100		R. Free Europe, Germany	
	19.76	100	OIX4	Pori, Finland	
	19.76	100		Tangier, Morocco	
	19.76	35/100		Poro (VOA), Philippines	
	19.76	8/100		Munich (VOA), Germany	
15190	19.75	50		R. Brazzaville, Congo	
	19.75	5	PRK9	R. Inconfidencia, Br.	
	19.75	15/100		BBC, London, Gt. Britain	
	19.75	10/100		R. Habana, Cuba	
	19.75	120/240		Peking, China	
	19.75	100		Accra, Ghana	
	19.75	25/100		Vatican Radio	
	19.75	10/100	VUD	AIR, Delhi, India	
	19.75	50		R. Canada, Canada	
15195	19.74	20/200		R. Japan, Japan	
	19.74	20	TAQ	R. Ankara, Turkey	
	19.74	10/100		R. Free Europe, Germany	
	19.74	110		Bethany, USA	
	19.74			Komsomolsk, USSR	
15200	19.74	15/100		BBC, London, Gt. Britain	
15205	19.73	5	XESC	R.dif. XEMC, Mexico	
	19.73	100	DMQ15	Deutsche Welle, Germany	
	19.73	10		Agencia Nac, Brazil	
	19.73	35		Colombo, Ceylon	
	19.73	50/250/500		Greenville, USA	
15210	19.72	50/100		Cairo, Un. Arab Republic	
	19.72	35/50		Malolos (VOA), Philippines	
	19.72			Khabarovsk, USSR	
	19.72	10/100		R. Habana, Cuba	
	19.72	35/100		Okinawa (VOA), Ryukyu Isl.	
	19.72	15/100		BBC, London, Gt. Britain	
	19.72	3	ZPA7	R. Guarani, Paraguay	
	19.72	120/240		Peking, China	
15215	19.71	10/100		R. Free Europe, Germany	
	19.71	2.5	ZYY9	R. Timbira, Brazil	
	19.71	50/250/500		Greenville, USA	
15220	19.71	10/50/100		R. Australia, Australia	
	19.71	120/240		Peking, China	
	19.71	50/100		R. Nederland, Holland	
15225	19.70	20/200		R. Japan, Japan	
	19.70	50		Bound Brook, USA	
	19.70	10	ZYN30	R. Cult. Bahia, Brazil	
	19.70	50		R. Kabul, Afghanistan	
	19.70	50		Taipei (BCC), Taiwan	
	19.70	10/100	VUD	AIR, Delhi, India	
	19.70	25	CXA64	La Voz de Melo, Uruguay	
15229	19.70	0.025	YNOLA	Ondas de Luz, Nic.	
15230	19.70	10	VLH15	Melbourne, Australia	
	19.70	2		Call of the Orient, Philipp.	
	19.70	15/100		BBC, London, Gt. Britain	
15235	19.69	20/200		R. Japan, Japan	
	19.69	50		R. Brazzaville, Congo	
	19.69	15/100		BBC, London, Gt. Britain	
	19.69	8/100		Munich (VOA), Germany	
	19.69	120/240		Peking, China	
	19.69	110		Bethany, USA	
	19.69	100		Beyrouth, Lebanon	
15240	19.69	10/100		R. Belgrade, Yugoslavia	
	19.69			Pyongyang, Korea (Dem. R.)	
	19.69	50/250/500		Greenville, USA	
	19.69	10/50/100		R. Australia, Australia	
	19.69	15/120		Peking, China	
	19.69	50		R. St. KGEI, USA	
	19.69			R. Berlin Int, Germ. (DDR)	
15245	19.68	10		R.dif. Congolaise, Congo (R.)	
	19.68	1/50	OEI69	Wien, Austria	
	19.68	10	ZYE21	R. Marajoara, Brazil	
	19.68	100		Allouis, France	
	19.68	15/100		BBC, London, Gt. Britain	
15250	19.67	110		Bethany, USA	
	19.67	7.5/50		Malolos (VOA), Philippines	
	19.67	35/100		Poro (VOA), Philippines	
	19.67	120/240		Peking, China	
	19.67	100		R. Bucharest, Rumania	
15255	19.66	10/100		R. Free Europe, Germany	

kc	m	kW	Call	Stations & countries	Rem.
15255	19.66			R. Berlin Int, Germ. (DDR)	
15260	19.66	1		Tokyo (FEN), Japan	
	19.66	15/100		BBC, London, Gt. Britain	
	19.66	35		Colombo (VOA), Ceylon	
	19.66	120/240		Peking, China	
	19.66	7.5/100		BBC, Singapore	
15265	19.66	10/100		R. Free Europe, Germany	
	19.66	50	PRG9	R. Excelsior, Brazil	
	19.66	100	ETLF	Addis Ababa, Ethiopia	
15270	19.65	50/250/500		Greenville, USA	
	19.65	100		R. Habana, Cuba	
	19.65	120/240		Peking, China	
	19.65	100	ETLF	Addis Ababa, Ethiopia	
	19.65	1	CXA18	S.O.D.R.E, Uruguay	
15275	19.64	100	DMQ15	Deutsche Welle, Germany	
	19.64	7.5/100		Warsaw, Poland	
15280	19.63	7.5	ZL4	Wellington, New Zealand	
	19.63	50		Bound Brook, USA	
	19.63	20		Chiayi (BCC), Taiwan	
	19.63	100	DMQ15	Deutsche Welle, Germany	
15285	19.63	100		Praha, Czechoslovakia	
	19.63	15/100		BBC, London, Gt. Britain	
	19.63	20/200		R. Japan, Japan	
15290	19.62	10	LRU	R. El Mundo, Argentina	
	19.62	10/100	VUD	AIR, Delhi, India	
	19.62	15/240		Peking, China	
	19.62	35/100		Tangier (VOA), Morocco	
15295	19.62	10	PRL8	R. Nac. Rio de Janeiro, Br.	
	19.62	100		Beyrouth, Lebanon	
	19.62	10/100		R. Free Europe, Germany	
15300	19.61	15/100		BBC, London, Gt. Britain	
	19.61	15/120		Peking, China	
	19.61	2/10	DZH9	Call of the Orient, Philipp.	
	19.61	10		Addis Ababa, Ethiopia	
15305	19.60	100	HER6	Schwarzenburg, Switzerland	
	19.60	50/250/500		Greenville, USA	
15310	19.60	15/100		BBC, London, Gt. Britain	
	19.60	20/200		R. Japan, Japan	
	19.60	50/100		Cairo, Un. Arab Rep.	
	19.60	25/100		BBC, Singapore	
	19.60	10/100	VUD	AIR, Delhi, India	
15313	19.59	15/120		Peking, China	
15315	19.59	100	HEU6	Schwarzenburg, Switzerland	
	19.59	50		Monrovia (VOA), Liberia	
	19.59	50/200		Delano, USA	
	19.59	10/100		R. Habana, Cuba	
	19.59	10/50/100		R. Australia, Australia	
15320	19.58	50		R. Canada, Canada	
	19.58	1/50	OEI604	Wien, Austria	
	19.58	20		Chiayi (BCC), Taiwan	
15325	19.58	50/60/100		R. Roma, Italy	
	19.58	10/50		Karachi, Pakistan	
	19.58	10	ZYR228	R. Gazeta, Brazil	
	19.58	1/50	OEI602	Wien, Austria	
	19.58	50/250/500		Greenville, USA	
	19.58	20/200		R. Japan, Japan	
	19.58			Erevan, USSR	
15330	19.57	120		R. Sofia, Bulgaria	
	19.57	50/250/500		Greenville, USA	
	19.57	10/50/100		R. Australia, Australia	
	19.57	10/100	VUD	AIR, Delhi, India	
15335	19.56	7.5	ZYU60	R. Soc. Farroupilha, Brazil	
	19.56	10/50		Karachi, Pakistan	
	19.56	20/100	ORU	Wavre, Belgium	
	19.56	100		Colombo, Ceylon	
	19.56	50	HLK42	Seoul, Korea	
	19.56	35/100		Poro (VOA), Philippines	
15340	19.56	100		R. Habana, Cuba	
	19.56			R. Berlin Int, Germ. (DDR)	
	19.56	20/50		R. Liberty, Germany	
15345	19.55	20/50		R. Liberty, Germany	
	19.55	25		Taipei (BCC), Taiwan	
	19.55	100	LRA33	R. Nacional, Argentina	
	19.55	50		Sebaa-Aioun, Morocco	
	19.55	100		Amman, Jordan	
	19.55	120/240		Peking, China	
15350	19.54	5		R. Luxembourg, Luxemb.	
	19.54	50		Monrovia (VOA), Liberia	
	19.54	50/100		Cairo, Un. Arab Republic	
15355	19.53	10/100		R. Free Europe, Germany	
	19.53	110		Bethany, USA	
15360	19.53	50/250/500		Greenville, USA	
	19.53	15/100		BBC, London, Gt. Britain	
	19.53	10/100		R. Free Europe, Germany	
15365	19.52	20/100	ORU	Wavre, Belgium	
15370	19.52	10	ZYC9	R. Tupi, Brazil	
	19.52	20/50		R. Liberty, Germany	

kc	m	kW	Call	Stations & countries	Rem.
15370	19.52	50	HLK34	Seoul, Korea	
	19.52	120/240		Peking, China	
	19.52	35/100		Okinawa (VOA), Ryukyu Isl.	
15375	19.51	15/100		BBC, London, Gt. Britain	
15380	19.50	100	CSA42	R. Nacional, Portugal	
	19.51	10/100	VUD	AIR, Delhi. India	
	19.51	100		R. Bucharest, Rumania	
15385	19.50	10	CXA70	R. Sarandi, Uruguay	
	19.50	50/80	WRUL	R. New York, USA	
	19.50	3/50	DZF3	Call of the Orient, Philipp.	
15390	19.49	20/200		R. Japan, Japan	
	19.49	110		Bethany, USA	
	19.49	15/100		BBC, London, Gt. Britain	
15395	19.49	20/50		R. Liberty, Germany	
	19.49	20		Taipei (BCC), Taiwan	
15400	19.48	35/100		Poro (VOA), Philippines	
	19.48	50/250/500		Greenville, USA	
	19.48	50/60/100		R. Roma, Italy	
15405	19.47	10/100		R. Free Europe, Germany	
	19.47	100	DMQ15	D. Welle, Germany	
	19.47	50/200		Dixon, USA	
	19.47	0.35		Paramaribo, Surinam	
15410	19.47	1/50	OEI66	Wien, Austria	
	19.47	100	ETLF	Addis Ababa, Ethiopia	
	19.47	50/250/500		Greenville, USA	
	19.47	100	DMQ15	Deutsche Welle, Germany	
15415	19.46	35		Colombo (VOA), Ceylon	
	19.46	50/250/500		Greenville, USA	
	19.46	1	ZYR206	R. Cl. de Ribeirão Preto, Br.	
15417	19.46	120/240		Peking, China	
15420	19.46	10/100		R. Free Europe, Germany	
	19.46	100		R. Nacional, Spain	
	19.46	15/100		BBC, London, Gt. Britain	
	19.46	100		Hörby, Sweden	
	19.46	100		Praha, Czechoslovakia	
15425	19.45	20/200		R. Japan, Japan	
	19.45	50/100		R. Nederland, Holland	
	19.45	10	VLX15	Perth, Australia	
				15427–17700 kc	
15430	19.44	120/240		Peking, China	
	19.44	50/100		Cairo, Un. Arab Republic	
	19.44	20/50		R. Liberty, Germany	
15435	19.44	15/100		BBC, London, Gt. Britain	
	19.44	7.5/100		BBC, Singapore	
15440	19.43	50/80	WRUL	R. New York, USA	
15445	19.43	50/100		R. Nederland, Holland	
	19.43	50		R. Rio, Brazil	
	19.43	50		R. Brazzaville, Congo	
	19.43	15/120		Peking, China	
	19.43	10		R. Nac. Brasilia, Brazil	
	19.42	15/100		BBC, London, Gt. Britain	
15448	19.42	100		Praha, Czechoslovakia	
15475	19.38	50/100		Cairo, Un. Arab Republic	
15480	19.38	15/120		Peking, China	
	19.38	1	BEH22	Taipei, Taiwan	
15490	19.36			Erevan, USSR	
15500	19.35	120/240		Peking, China	
15520	19.33	120/240		Peking, China	
15550	19.29	15/120		Peking, China	
15590	19.24	15/120		Peking, China	
15610	19.22	15/120		Peking, China	
15670	19.15	120/240		Peking, China	
15710	19.10	15/120		Peking, China	
	19.10	10		R. Sanaa, Yemen	
15880	18.89	15/120		Peking, China	
17450	17.20	15/120		Peking, China	
17490	17.15	15/120		Peking, China	
17533	17.11	15/120		Peking, China	
17544	17.09	1		R. Oglaig, Ireland	
17605	17.04	15/120		Peking, China	
17635	17.01	15/120		Peking, China	
17640	17.00	10		Dacca, Pakistan	
17680	16.97	120/240		Peking, China	
**17685	16.96		GIC37	Hailsham, Gt. Britain	
17690	16.96	50/100		Cairo, Un. Arab Republic	
17695	16.95	15/100		BBC, London, Gt. Britain	
				17700–17900 kc – 16 metre band	
17705	16.94	15/100		BBC, London, Gt. Britain	
	16.94	10	CR6RZ	R. Angola, Angola	
	16.94	10/100	VUD	AIR, Delhi, India	
	16.94	10	ZYR97	R. Nove de Julho, Br.	
	16.94	35/50/100		Tangier (VOA), Morocco	
17710	16.94	50/250/500		Greenville, USA	
	16.94	50		R. Cambodge, Cambodia	
17715	16.93	15/100		BBC, London, Gt. Britain	
	16.93	10/50/100		R. Australia, Australia	
17720	16.93	25/100		Vatican Radio	

kc	m	kW	Call	Stations & countries	Rem.
17720	16.93	50	WINB	Red Lion, USA	
	16.93	100	HEU7	Schwarzenburg, Switzerland	
	16.93	120/240		Peking, China	
	16.93	50		R. Brazzaville, Congo	
17725	16.93	10/100		R. Free Europe, Germany	
	16.93	20/200		R. Japan, Japan	
	16.93	1	ZYR232	R. Universitaria, Brazil	
17730	16.92	15/100		BBC, London, Gt. Britain	
	16.92	50/100		Cairo, Un. Arab Republic	
	16.92	120/240		Peking, China	
17735	16.92	50/200		Dixon, USA	
	16.92	1/50	OEI709	Wien, Austria	
	16.92	10/100		R. Free Europe, Germany	
	16.92	10/100	VUD	AIR, Delhi, India	
17740	16.91	15/100		BBC, London, Gt. Britain	
	16.91	50/60/100		R. Roma, Italy	
17745	16.91	15/100		BBC, London, Gt. Britain	
	16.91	1/50	OEI713	Wien, Austria	
	16.91	120/240		Peking, China	
	16.91	20/50		R. Liberty, Germany	
	16.91	10/50		Karachi, Pakistan	
	16.91	7.5/50		Malolos (VOA), Philippines	
17750	16.90	10/50		Karachi, Pakistan	
	16.90	1/50/100		R. Kuwait, Kuwait	
	16.90	35/50/100		Tangier (VOA), Morocco	
	16.90	100		Praha, Czechoslovakia	
17755	16.90	7.5/100		BBC, Singapore	
	16.90	10/100	LKW	R. Norway, Norway	
	16.90	20/200		R. Japan, Japan	
	16.90	15/100		BBC, London, Gt. Britain	
	16.90	50/250/500		Greenville, USA	
17760	16.89	10/50		Karachi, Pakistan	
	16.89	50/100		Cairo, Un. Arab Republic	
	16.89	50/80	WRUL	R. New York, USA	
17765	16.89	120/240		Peking, China	
	16.89	1/50	OEI72	Wien, Austria	
	16.89	50/200		Delano, USA	
	16.89	100		Allouis, France	
17770	16.88	50/60/100		R. Roma, Italy	
	16.88	10/100		R. Free Europe, Germany	
17775	16.88	50/100		R. Nederland, Holland	
	16.88	10		Addis Ababa, Ethiopia	
	16.88			R. Clube de Mocambique	
17780	16.87	15/120		Peking, China	
	16.87	25/100		Vatican Radio	
	16.87	110		Bethany, USA	
17785	16.87	20/50		R. Liberty, Germany	
	16.87	25		Taipei (BCC), Taiwan	
	16.87	20/200		R. Japan, Japan	
	16.87	50/100		Cairo, Un. Arab Republic	
17790	16.86	15/100		BBC, London, Gt. Britain	
17795	16.86	20/200		R. Japan, Japan	
	16.86	5		Manaus, Brazil	
	16.86	100	HEI8	Schwarzenburg, Switzerland	
	16.86	110		Bethany, USA	
17800	16.85	10/100	VUD	AIR, Delhi, India	
	16.85	50		R. Sofia, Bulgaria	
	16.85	50/100		R. Nederland, Holland	
	16.85	50/60/100		R. Roma, Italy	
17805	16.85	2/10	DZ16	Call of the Orient, Philipp.	
	16.85	10/100		R. Free Europe, Germany	
17810	16.84	15/100		BBC, London, Gt. Britain	
	16.84	50/100		R. Nederland, Holland	
	16.84	120/140		Peking, China	
	16.84	2	DZI6	Call of the Orient, Philipp.	
17815	16.84	100	DMQ17	Deutsche Welle, Germany	
	16.84	10		R. Cultura, Brazil	
	16.84	50	HLK46	Seoul, Korea	
17820	16.84	10/100	VUD	AIR, Delhi, India	
	16.84	50		R. Canada, Canada	
	16.84	10/50/100		R. Australia, Australia	
	16.84	50/200		Delano, USA	
	16.84	35		Colombo, Ceylon	
	16.84	100	TAV	R. Ankara, Turkey	
17825	16.83	10/100	LLN	R. Norway, Norway	
	16.83	7.5/10		Dacca, Pakistan	
	16.83			R. Berlin Int, Germ. (DDR)	
	16.83	20/200		R. Japan, Japan	
17830	16.83	50/250/500		Greenville, USA	
	16.83	100		Praha, Czechoslovakia	
	16.83	10/100	VUD	AIR, Delhi, India	
17835	16.82	120/240		Peking, China	
	16.82	20/100	ORU	Wavre, Belgium	
	16.82	100	CSA209	R. Nacional, Portugal	
	16.82	10/100		R. Free Europe, Germany	
17840	16.82	100		Hörby, Sweden	
	16.82	10/100		R. Free Europe, Germany	

kc	m	kW	Call	Stations & countries	Rem.
17840	16.82	50/100		R. Nederland, Holland	
	16.82	10/50/100		R. Australia, Australia	
	16.82	25/100		Vatican Radio	
17845	16.81	100	DMQ17	Deutsche Welle, Germany	
	16.81	100	HER33	Schwarzenburg, Switzerland	
	16.81	35/100		Poro (VOA), Philippines	
	16.81	110		Bethany, USA	
	16.81	100		Hörby, Sweden	
17850	16.81	100		Allouis, France	
	16.81	10	PRL9	R. Nacional, Brazil	
	16.81	50/200		Dixon, USA	
17855	16.80	10/100		R. Free Europe, Germany	
	16.80	20/200		R. Japan, Japan	
	16.80	10/100		R. Habana, Cuba	
	16.80	110		Bethany, USA	
	16.80	35/100		Tangier (VOA), Morocco	
	16.80	10/100	VUD	AIR, Delhi, India	
17860	16.80	15/100		BBC, London, Gt. Britain	
	16.80	25/100		Vatican Radio	
	16.80	120/240		Peking, China	
	16.80	20/100	ORU	Wavre, Belgium	
17865	16.80	20		Damascus, Syria	
17870	16.79	20/200		R. Japan, Japan	
	16.79	50		Monrovia (VOA), Liberia	
	16.79	10/50/100		R. Australia, Australia	
	16.79	15/100		BBC, London, Gt. Britain	
	16.79	100	DMQ17	Deutsche Welle, Germany	
17875	16.79	10/100		R. Habana, Cuba	
	16.79	50/100		Cairo, Un. Arab Republic	
	16.79	10/100		R. Free Europe, Germany	
	16.79	7.5	PRC2	R.dif. Educacão, Brazil	
17880	16.78	15/100		BBC, London, Gt. Britain	
	16.78	20/200		R. Japan, Japan	
	16.78	15/120		Peking, China	
	16.78	100	CSA45	R. Nacional, Portugal	
17885	16.78	20		Paradys, So. Africa	
	16.78	120/240		Peking, China	
	16.78	10/100		R. Free Europe, Germany	
	16.78	20/50		R. Liberty, Germany	
17890	16.77	15/100		BBC, London, Gt. Britain	
	16.77	7.5/20		Omdurman, Sudan	
	16.77	50		Taipei (BCC), Taiwan	
	16.77	30	HCJB	Voz de los Andes, Ecuador	
	16.77	20/50		R. Liberty, Germany	
17895	16.76	20/50		R. Liberty, Germany	
	16.76	100	CSA66	R. Nacional, Portugal	
	16.76	20/200		R. Japan, Japan	
17900	16.76	15/240		Peking, China	
			17910–21450kc		
17905	16.75	50/100		Cairo, Un. Arab Republic	
17910	16.75	100		Accra, Ghana	
17920	16.74	50/100		Cairo, Un. Arab Republic	
18080	16.59	15/100		BBC, London, Gt. Britain	
*18985	15.94	8	OLD2	Praha, Czechoslovakia	
**19640	15.20		GIA39	Hailsham, Gt. Britain	
*20000	15.00	1	WWV	Lanham, USA	
			21450–21750kc		
21450	13.99	100		Praha, Czechoslovakia	
21455	13.98	35/50/100		Tangier (VOA), Morocco	
	13.98	15/100		BBC, London, Gt. Britain	
	13.98	7.5/20		Omdurman, Sudan	
21460	13.98	100		R. Habana, Cuba	
21470	13.97	15/100		BBC, London, Gt. Britain	
21480	13.97	50/100		R. Nederland, Holland	
21485	13.96	110		Bethany, USA	
	13.96	10/100		R. Free Europe, Germany	
21490	13.96	15/100		BBC, London, Gt. Britain	
	13.96	25/100		Vatican Radio	
21495	13.96	100	CSA67	R. Nacional, Portugal	
21500	13.95	1.5/50		R. Brazzaville, Congo	
21510	13.94	20/100	ORU	Wavre, Belgium	
21515	13.94	25/100		Vatican Radio	
21520	13.94	100	HER8	Schwarzenburg, Switzerland	
21530	13.93	15/100		BBC, London, Gt. Britain	
21535	13.93	0.5		ELWA, Liberia	
21540	13.93	10/50/100		R. Australia, Australia	
	13.93	50		Bound Brook, USA	
21545	13.92	100		Accra, Ghana	
21550	13.92	15/100		BBC, London, Gt. Britain	
21560	13.91	50/60/100		R. Roma, Italy	
21565	13.91	50/100		R. Nederland, Holland	
21570	13.91	50/250/500		Greenville, USA	
21580	13.90	100		Allouis, France	
	13.90	10/100	VUD	AIR, Delhi, India	
21590	13.90	50/250/500		Greenville, USA	
	13.90	10/50		Karachi, Pakistan	
	13.90	50/200		Dixon, USA	
21592	13.90	10/50		Karachi, Pakistan	
21595	13.89	15/100		BBC, London, Gt. Britain	
	13.89	8/100		Munich (VOA), Germany	
21600	13.89	15/100		BBC, London, Gt. Britain	
	13.89	10/100		R. Free Europe, Germany	
	13.89	10/100		R. Habana, Cuba	
21610	13.88	110		Bethany, USA	
	13.88	15/100		BBC, London, Gt. Britain	
21615	13.88	15/100		BBC, London, Gt. Britain	
21620	13.87	10/100		R. Free Europe, Germany	
	13.87	100		Allouis, France	
21625	13.87	50/100		R. Nederland, Holland	
21630	13.87	15/100		BBC, London, Gt. Britain	
	13.87	100		R. Habana, Cuba	
21640	13.86	15/100		BBC, London, Gt. Britain	
21645	13.86	50/250/500		Greenville, USA	
21650	13.86	100	DMQ21	Deutsche Welle, Germany	
	13.86	50/200		Dixon, USA	
21660	13.85	15/100		BBC, London, Gt. Britain	
21665	13.85	10/100		R. Free Europe, Germany	
	13.85	50/100		R. Nederland, Holland	
21670	13.84	5	LLP	R. Norway, Norway	
21675	13.84	15/100		BBC, London, Gt. Britain	
21680	13.84	15/100		BBC, London, Gt. Britain	
21685	13.83	10		Dacca, Pakistan	
21695	13.83	35/50/100		Tangier (VOA), Morocco	
21700	13.83	100	CSA49	R. Nacional, Portugal	
21710	13.83	15/100		BBC, London, Gt. Britain	
21715	13.82	50/100		R. Nederland, Holland	
21720	13.81	10/100		R. Free Europe, Germany	
21720	13.81	50		Bound Brook, USA	
21730	13.81	5	LLQ	R. Norway, Norway	
21740	13.80	50		Bound Brook, USA	
	13.80	15/100		BBC, London, Gt. Britain	
21745	13.80	10/100		R. Free Europe, Germany	
	13.80	50/200		Delano, USA	
*25000	12.00	0.1	WWV	Lanham, USA	
			25600–26100 kc (11 m.b.)		
25610	11.71	50/100		R. Nederland, Holland	
25650	11.70	100		BBC, London, Gt. Britain	
25670	11.69	100		BBC, London, Gt. Britain	
25720	11.66	100		BBC, London, Gt. Britain	
25750	11.65	100		BBC, London, Gt. Britain	
25780	11.64	25/100		Vatican Radio	
25840	11.61	100		BBC, London, Gt. Britain	
25850	11.60	15/100		BBC, London, Gt. Britain	
25900	11.58	2	LLA	R. Norway, Norway	
25920	11.57	15/100		BBC, London, Gt. Britain	
26040	11.52	15/100		BBC, London, Gt. Britain	
	11.52	50/100		R. Nederland, Holland	
26080	11.50	15/100		BBC, London, Gt. Britain	

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LAST MINUTE INFORMATION

AUSTRIA: AD: Prgr. I: 11 h per day (national), 5 h 45 min. per day (reg. for each studio); Prgr. II: 18 h 35 min. per day; Prgr. III: 5 h 40 min. per day – **First Prgr: N:** W 15.45 (instead of 16.00). Sun: 05.00 – **Slovenian:** Sun 06.30–07.00, Mo–Fri 13.15–13.55, Sat 08.00–09.00 and fortnightly 17.25–17.45.

Second Prgr: N, Wrp: Sun add 22.00. Delete, Quiz Prgr. (Sat).

Third Prgr: rel. 2nd prgr. until 16.10, than non stop music. W 16.10–17.55. Sun 16.10–17.00 serious music. W 17.55(Sun 17.00)–23.00 light music.

COLOMBIA: Add new organization:
FEDERACION COLOMBIANA DE RADIODIFUSION (Federadio) – Addr: Cra. 7, 1764, Ofna. 1004, Bogotá.

Medium Waves: Read: 38) **R. Tricolor,** Bello – 57) **R. Melodía** – 77) **La Voz del Valle,** Cali – 85) **R. Internacional,** Cucuta – 86) **R. Juventud,** Bogotá – 90) **R. Sintonia,** Villamaria – 107) **Emis. Atalaya,** Bucaramanga – 116) **R. Mundial,** Bogotá – 117) **R. Sideral,** Carrera – 136) **R. Bahía,** Cartagena, – 147) **R. Alegria,** Bogotá.

GERMANY (Federal Rep): DEUTSCHE WELLE: German Prgr: 12.50–15.50 (III) on 11930/15275kc, 16.00–19.00 (IV) on 7160/9545kc, 00.00–03.00 (VII) on 6000/6100/9545kc, 03.00–06.00 (IX) on 6000/6100/9640kc – **Foreign Language Prgr: English:** 01.35–02.15 (VII) on 6170/9640kc, 06.05–06.35 (V) on 9640/11785kc, 08.45–09.40 (I) on 11925/15185/17845kc, 15.50–16.20 (III) on 7205/9735kc, 16.15–17.10 (V) on 15275/17845kc, 20.20–20.50 (V) on 7160/9735kc, 21.10–22.00 (I) on 5980/7205kc – **French:** 02.15–02.55 (VII) on 6170/9640kc, 06.45–07.25 (V) on 9640/11785kc, 20.50–21.50 (V) on 7160/9735kc – **Spanish:** 05.40–06.40 (VI/VIII) on 6145/9545kc.

GREECE: National Hellenic Broadcasting Institute – L.P: Dir. Gen: E. Stassinopoulus.

HOLLAND: R. NEDERLAND: "Dutch by Radio": Wed (repeat of previous Sun's lesson): 15.00–15.20 on 5980/6020kc for Europe, 15425kc for Africa, 11710/15445kc for F. East; 20.30–20.50 on 6035/9715kc for No. America/Europe, 22.30–22.50 on 6020/6085/9715kc for Europe & No. America.

INDIA: Short Waves: Add 6060, 7195, 7260, 11820, 11835kc. **External Services: General Sce:** To Ea. Africa, Mauritius:17.45–19.30 on 7125/9680/11790/11820kc (17.45 Gujarati, 18.30 Konkani, 18.40 English). **Eastern Sce:** 01.30–02.15 Nepali on 4960/5955kc. To China: 11.45–13.15 (Cantonese, Kuoyu) on 7125/9665kc. To No. Ea. Asia (English): 10.00–11.00 on 9520/11770/15105/17855kc. To Australia/New Zealand (English): 10.00–11.00 on 11710/15290kc. To Bhutan/Sikkim: 12.30–13.15 on 6190/7290kc. To Indonesia: 12.15–13.15 on 15105/17800kc. **Western Sce:** To Afghanistan: 02.45–03.00 on 6140/7195kc. To Iran: 16.15–17.15 on 5955/7225kc. To U.K./We. Europe: 19.45–20.45 English on 5990/7235/9520/9915kc. To We. Africa: 19.45–20.45 English on 7125/9690/9520/11835kc.

ISRAEL: Foreign Service: To So. Africa: 15.30–16.30 (Yiddish 15.30, English 16.00) – To Balkan/Ea. Europe/Mid East: 16.45–19.45 (Yiddish 16.45, Persian 17.15, Russian 17.45, Rumanian 18.15, Hungarian 18.30, Spaniolish 18.45, Jevrit 19.00) – To We. Europe: 19.30–20.30 (French 19.30, English 20.00).

NETHERLANDS ANTILLES: St. PJD2, St. Maarten: 5 kW from Summer 1964.

SINGAPORE (Fed. of Malaysia):
SINGAPORE STATION OF R. MALAYSIA (Go) – ADDR: P.O. Box 3002, Singapore. **Te:** 50401 – **L.P:** Dep. Head, Broadc. Division: P. S. Rahman.

English Sce: W: 22.30–01.30, 03.30–16.30. Sun 22.30–16.30. NS: Mo, Wed, Fri, Sun 13.30–16.30. **Chinese Sce:** W: 22.30–01.30, 03.30–07.30, 08.30–16.30. Sun 22.30–16.30. NS: Tues, Thurs, Sat 13.30–16.30. **Indian (Tamil Sce):** D: 22.30–23.45, 01.30–12.00. NS: Mo, Tues, Wed 12.00–13.25, Thurs 12.30–13.25, Fri 11.45–13.30, Sat 12.00–13.30, Sun 12.15–13.25. **Malay Sce:** D: 23.45–01.30, 04.30–05.45, 12.00–16.30. NS: Mo–Thurs 10.30–11.30, Fri 10.30–11.15, Sat 10.30–11.30, Sun 10.30–12.00.

Comm. Prgr's in English: On 7250kc: W 22.30–01.30, 06.30–07.30 (Sat 09.30). Sun 22.30–03.30. On 9590kc: W 04.30–06.30, 14.30–16.30. Sun 04.30–09.30. On 11940kc: 09.30–10.30 (Sun also 14.30–16.30). On 630kc: D 12.30–14.30 – **ANN: E:** "This is R. Malaysia broadcasting from Singapore". Malay: "Ini Lah R. Malaysia, Siaran Singapura". Tamil: "R. Malaysia, Singapura Nilayam".

SHORT WAVE CLUBS

RADIO-CANADA SHORTWAVE CLUB is on the air weekly to Europe, Africa, the Caribbean, the Americas, Australia, New Zealand and the islands of the Pacific at the times given below. The program runs for approximately 10 minutes and can be heard in the English, French and German language periods of the CBC International Service.

ENGLISH, Saturdays to Europe (1) at 13.30-14.00 on 16, 19 and 25 metres. To Africa at 18.30-19.15 on 13, 16, 19 and 25 metres. To Europe (2) at 20.45-21.30 on 16, 19, 25 and 31 metres. To the Caribbean and the Americas at 23.00-23.30 on 16, 19, 25, 31 and 49 metres. Sundays to Australasia; First broadcast at 07.15-08.00; Second broadcast at 08.00-08.50 on 31 and 49 metres. All English-language programs of Club follow program FOCUS —

FRENCH, "Allo DX", Saturdays to Africa at 19.45 on 13, 16, 19 and 25 metres. Saturdays to Europe at 20.30 on 16, 19, 25 and 31 metres. — **GERMAN,** "Radio Kanada Kurzwellenklub", Sundays at 18.15 on 16, 19, 25 and 31 metres.

INTERNATIONAL SHORT WAVE LEAGUE. Join the ISWL and enjoy the following free services: QSL Bureau, Translations (40 languages), Station Identification (broadcast and utility stations), DX Certificates, Contests, Tape Section, Correspondance Bureau, etc. Monthly magazine, MONITOR, contains short-wave station news from official sources and 1,700 ISWL members in 80 countries; also contains sections for amateur SWLs, transmitting amateurs, VHF listeners, QSL card collectors, etc; general articles about short-wave stations, reporting and identifying stations in many languages, members experiences, etc., etc. Annual membership fee £ 1/1/0, US $ 3.00. Write now for free explanatory booklet to: **Dept. WRH, ISWL, 12 Gladwell Road, London N.8, England.**

THE DANISH SHORT WAVE CLUB INTERNATIONAL, P. O. Box 6, Nørresundby, Denmark, publishes »SHORTWAVE NEWS«-(intern) and »KORTBØLGENYT« for Scandinavia (excl. July). Membership fee per year: 15 D. Kr., $ 2.25, £ 0/16/0, 25 IRC. Payment to K. H. Høilund, Tyge Brahesvej 47, Aalborg, Denmark. Postgiro:103 409.

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SVERIGES DX-FÖRBUND publishes »ETER-AKTUELLT« monthly. Printed bulletin with latest sw-news. Sample copy free of charge. Annual subscription Sw. Crs. 12.—. Write to: Eter-Aktuellt, Landskrona, Sweden.

THE MALMÖ SHORTWAVE CLUB, P. O. Box 7026, Malmö 7, Sweden publishes a printed magazine »MDX-aren«, which contains 40-48 pages and several parts written in English. As a member you get »MDX-aren« monthly, and our member-service includes all for the DX-er at reductions. Membership fee annually: Sw. Crs. 10:-; $ 2.00; DM 8; £ 0/14/0 or 25 IRCs. Air Mail: $ 4.00. Sample copy free of charge.

RADIO INFORMATION, the International, Danish edited radio (dx) publication. R. I. Bulletin, with news from Denmark of interest to non-European radios. R. I.s News Service with a fortnightly edited tape comprising news, music etc. R. I.'s Programme Service, as prepares transmissions for radiostations of Denmark concerning topics. Write for: Radio Information, P. O. Box 824, Copenhagen Ø., Denmark.

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PROTESTANT

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(formerly "World Committee for Christian Broadcasting"), constituted at its Limuru, Kenya, Assembly, May, 1963.
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WORLD COUNCIL OF CHURCHES

The Rev. C. Michael de Vries, Secretary for Work in the Field of Broadcasting, Dept. of Information. **Addr:** 17, Route de Malagnou, Geneva, Switzerland.

The Lutheran World Federation. Same address. The addr. of the Lutheran World Federation Broadc. Sce. is P.O. Box 654, Addis Ababa, Ethiopia–Dir. of Broadc: Rev. S. Aske, Ph. D.- Public: occasional newsletters.

ROMAN-CATHOLIC:

Pontifical Commission for Motion Pictures, Radio and Television.
Addr: Palazzo S. Carlo, Vatican City State.
Pres: Archbishop of Lacdicea in Syria the Most Reverend Martin J. O'Connor.

UNDA: Association catholique internationale pour la Radiodiffusion et la Télévision.
Protector: Bishop of Lausanne, Geneve and Fribourg, Mgr. Francoise, Charrière, Fribourg, Switzerland.
General Secretariat: Avenue de la Gare 6, Fribourg, Switzerland–Gen. Secr. Abbé Dr. J. Schneuwly.
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Members of the organization: Radiodiffusion-Télévision réligieuse et Katholiek Televisie en Radio-Centrum (Belgien), Emisora Catolica Pie XII (Bolivien), Radio Chilena (Chile), Radio Católica (Ecuador), Radio Metropolitana (Guatemala), Radio Catholique d'Haiti, La Voz de Sovapa (Honduras), Radio Collège (Kongorepublik Katanga), Radio Fides (Costarica), Stichting Katholieke Radio Omroep (Niederlande), Radio Hogar (Panama), Radio Holy (Panamakanalzone), Radio Charitas (Paraguay), Radio University of Santo Thomas (Philippine), Radio Renascenza (Portugal), Radio Sarandi (Uruguay), Radio Vaticana, Emisora Radio Catolica (Venezuela).
UNDA-Nouvelles: French, English, German.
News revue: The Secretariat for Latin America publish a monthly revue called: Informe de UNDA America Latina.

RELIGIOUS SOCIETIES PROTESTANT

EUROPE:

IKOR (Ecumenical society): Interkerkelijk Overleg in Radioaangelegenheden, Hilversum, Borneolaan 27.

NCRV, Nederlandsche Christelijke Radio Vereeniging, Schuttersweg 8, Hilversum.

VPRO, Vrijzinnig Protestantse Radio-Omroep, Hilversum, Holland.
Radio Reveil, Via Tesserete 51, Lugano,

NOREA: Nordic Radio Evangelistic Association. In connection with Norwegian Lutheran Mission. Cooperating with Trans World Radio, Monaco. Broadcasting over R. Monte Carlo. (See Norway).

IBRA Radio Mission, Box 821, Stockholm 1, Sweden. Memberorganization: IBRA Radio Federation is an intern. fed. of listeners. (See Sweden).

AFRICA:
The Federation of Churches (CENTAVEP) in Yaounde, Cameroon. B.P187 A Ravemcco related agency and a function of the Cameroon Federation of Churches.

AMERICA:
National Religious Broadcasters, an association of Protestant national and intern. broadcasters on radio and tv. Pres: Dr. E. R. Bertermann, 210 North Broadway, Saint Louis 2, Missouri.

Difusiones Inter-Americana: (DIA), an evangelical organization, established to produce, process, distribute and promote radio and tv. prgr's, recordings and audio visual aids for the evangelizing of Latin America–Addr: Apt. 2470, San José, Costa Rica.

Latin America Mission, 285 Orchard Terrace, Bogota, N.J. and Apt. 1307, San José, Costa Rica. Pres: Dr. R. Kenneth Strachan. Radio Dir: Paul Pretiz. Publ: "Radio Headlines".

Central American Mission (operates TGNA, Guatemala), 3611 Congres Ave, Dallas, Texas.

Centro Audio-Visual Evangélico (CAVE): Produce and distribute religious, cultural audio-visual materials primarily in Portuguese. Secr. Gen. Dr. A. J. Ribeiro. Addr: Box 943, Campinas, São Paulo, Brazil.

The Evangelical Allicance Mission, 2845 West McLean Av, Chicago 47, Ill, USA. Gen. Dir: V. Mortenson.

The Gospel Missionary Union. Headquarters, Drawer "C", Smithville, Mo. USA. Pres: Don P. Shidler. Publ: Gospel Message.

West Indies Mission, R. D. 1, Box 279 Homer City, Penn. USA–Dir. Gen: Rev E. V. Thompson. Superintendant of Haiti Field: Rev. David Hartt. Publ: "The Whitened Harvest". Is working in the West Indies and in South America.

Broadcasting and Film Commission NCCUSA, New York, USA. National Council of Churches of Christ in the USA, 475 Riverside Drive, New York 27, Exec. Dir: S. F. Mack.

RAVEMCCO, New York, USA. Radio, Visual Education and Mass Communication Committee of the Division of Foreign Missions of the National Council of the Churches of Christ in the USA, 475 Riverside Drive, New York 27, N.Y., Exec. Secr: Dr. B. M. Luben.

Far East Broadcasting Co, Inc, P.O. Box 1, Whittier, California. Pres: Robert H. Bowman. Private Comp. with no member organizations. Publ: "The Broadcaster" monthly.

The Lutheran Hour "Bringing Christ to Nations", Saint Louis, USA. Sponsored by The Lutheran Laymen's League, 2185 Hampton Avenue, St. Louis 10, Missouri. Exec. Dir: P. Friedrich. Dir. Broadc: C. Thomas Spitz.

The Oriental Missionary Society and the Inter-American Missionary Society. 850 N. Hobart Blvd. Los Angeles 29, California, USA. Pres: Dr. Eugene Erny. Dir. Haiti Field incl. allied missionary activities: E. Turnidge, Box 1, Cap Haitien, Haiti.

World Radio Missionary Fellowship: Talcottville, Conn, USA. Pres: Abe Van der Puy, P.O. Box 691, Miami, Florida. Operates La Voz de los Andes HCJB Ecuador; No. American Headquarters P.O. Box 691, Miami 47, Florida.

World Conference on Missionary Communications or Intern. Christian Broadcasters orgaized in 1954 as an agency encouraging a continuing dialogue between missionary radio and tv agencies in every area for mutual and individual improvement, securing a greater impact in communicating the Gospel of Jesus Christ. Addr: Talcottville, Conn, USA. Pres: Clarence W. Jones.

Lutheran Television Productions, a Board of the Lutheran Church-Missouri Synod, producing and distributing "This is the Life" and "The Fisher Family". Exec. Secr: Dr. E. R. Berterman. Prgr. Dir: Dr. H. W. Gockel, 210 No. Broadway, Saint Louis 2, Missouri.

Canadian Baptist Foreign Mission Board, 190 S. George Str, Toronto 5, Ontario, Canada. Gen. Secr: Dr. H. S. Hillyer.

ASIA AND PACIFIC:
The Near East Christian Council: Rev. E. M. Luidens, Exec. Dir. of the Radio Project of Radio-Audio-Visual Committee, Box 5376, Beirut, Lebanon.

Christian Broadcasting Association, 420 Lyons Rd, Five Dock, Sydney, N.S.W., Australia. Man. Dir: Rev. V. Turner. Radio prgr. production on behalf of Protestant Churches.

Pacific Broadc. Ass., CPO1000 Tokyo, Japan. Mgr. A. J. Seely. Production and Distribution of radio and tv–programmes.

PLANNED STATIONS
EPI: Emetteur Protestant International, Post Office 392, Berne, Switzerland, TX: 1 sw. st. with two 250kW tr's planned. L: Prgr's in 17 languages planned–**Org:** Federation of Swiss Protestant Churches and the EPI Association.
Trans World Radio: A 100kW mw-tr. and a 250kW sw-tr. to be built on the Island of Bonaire, Neth-Antilles. Prgr's planned in 22 languages directed to the Americas and Europe.
South East Asia Radio Project, an East Asia Christian Conference project; one 50kW tr. being constructed in Dumaguete City, Philippines, to be directed to So. Ea. Asia
Christian Radio Network, Manila, Philippines, two 10kW and one 1kW FM tr; will be related to DYSR/DYCR.

DX-CLUBS OF THE WORLD

AUSTRIA: Vienna News Agency c/o K. H. Lindenthal, Vienna XIV, Hütteldorferstr. 173 (Publ: "The News").
AUSTRALIA: New Zealand DX Radio Association (Australia section) G.P.O. Box 379D, Hobart, Tasmania – New Zealand DX Radio Association (N.S.W. Branch), 50 Brush Rd. Eastwood, Sydney – We. Australian Branch of the N.Z. DX Radio Ass, 108 Lansdowne Rd., So. Perth. and New So. Wales Branch, 50 Kauri Str., Cakramatta, NSW. Publ. "Wavelenght".
BELGIUM: Europa DX-TV Club, 45 Schelpenstraat, Rekkem, West Vlaandern (Publ: "Europa DX-TV Club" in F, E, G, Dutch).
BRAZIL: Clube Investigacão Ondas Receptores do Brazil C.P. 626, Campinas, C.P. Estado de Sao Paulo. (Publ: "Short Wave News").
CANADA: R. Canada Shortwave Club, c/o CBC, International Sce, P.O. Box 6000, Montreal – **Canadian Aero-Space Club**, 2740 Everts Ave., Windsor, Ontario. (Publ: "Wings & Space" in Engl.) – **Canadian DX-Club** 946 Lawrence Ave. East, Apartement 5, Don Mills, Ont. (Publ: "Cadex") – **Canadian International DX Radio Club**, 616 Stewart St., St. Charles, Manitoba. (Publ: "CIDX Messenger" in English).
DENMARK: The Danish Short Wave Club International, P. O. Box 6, Nørresundby. (Publ: "Shortwave News" in Engl. a. "Kortbølge Nyt" in Da.) – **Danmarks DX Club**, c/o J. Kryger, Hundslev pr. Ketting, Als. (Publ: "DX-News" from DX-LC, Norway) – **The Cimbrer DX-Club**, Vestervang 3, Aars. (Publ: "The Cimbrer DX-News" in Engl./Dan sh) – **World Radio Club**, P.O. Box 824, Copenhagen Ø.
ECUADOR: HCJB-Club, La Voz de los Andes, Cas. 691, Quito.
FINLAND: Affiliated with *) Finlands Svenska DX-Förbund – **) The Federation of Finnish DX-Clubs –.**) **DX-Kerho Suomi ry**, P.O. Box 454, Helsinki. (Publ: "DX-Kuuntelija") – *) **Esbo DX-Klubb rf**, Morby, Esbo – **Federation of Finnish DX-Clubs**, Parksvängen 19c, Drumsö – **) **Finlands DX-Club rf**, P.O. Box 214, Helsinki. (Publ: "Attention" in Engl. a. Swedish) – **Finlands Svenska DX-Förbund**, Kungsgatan 11, Ekenäs. (Publ: "Frekvensnytt in Swedish – distributed to members of all aff. clubs) – *) **Jakobstads DX-Club**, Fridhemsvägen 13, Jakobstad – *) **Nykarleby Radio Club rf**, Nykarleby – **The Scandinavian DX-Club**, Tavastby. (Publ: "DX–Uutta") – *) **Västra Nylands DX-Klubb rf**, Kungsgt. 11, Ekenäs.
GERMANY: Calling DX-ers from Germany, Münchener Str. 40, Bremen (Publ: "Calling DX-ers from Germany" in Engl.) – **North German DX Club**, Hamburg-Volksdorf, Im Allhorn 6 – **Radio Japan Club**. Branches as follows, Publ: "RJC-Mitteilungen". Berlin: Berlin 51 Residenzstr. 15a – Hamburg: 200 Hamburg 19. Grädenerstr. 5 – Westphalen: 48 Bielefeld, Postfach 8501 – North West: 294 Wilhelmshaven 9, Dirschauerstr. 1 – Kl. Aachener Runde: 51 Aachen, Robenstr. 44 – Zentral-Kartei: 2201 Kl. Offenseth, ü., Elmshorn.
HOLLAND: Benelux DX-Club, Oude Amersfoortseweg 153, Hilversum (Publ: "Benelux DX-Club" in Dutch a. English).
JAPAN: R. Japan Club, NHK, Tokyo – **Japanese Short Wave Club**, P.O. Box 29 Sendai (Publ: "SWDX Guide") – **Radio Nederland Listener Club**, P.O. 24 Shiga-ken (Publ: "Un-Publication").
KOREA: Korean Short Wave Club, 40 Yon-sei Educational Broadcasting System, Yon-sei University, Seul – **Korea Shortwave Radio Club (KSC)** and **Radio Japan Club**, 424-1 ku, 3 Ka, Tong-in-Dong, Taegu City (Publ: "KSC bulletin").
NEW ZEALAND: New Zealand DX Radio Association, 78 District Rd. Green Island, Dunedin (Publ: "Tune In" in Engl.) – **New Zealand Radio DX League**, P.O. Box 1356, Christchurch (Publ: "New Zealand DX-Times" in Engl.).
NIGERIA: Radio Nigeria Listeners Club, 45, Martins St., Lagos (Publ: "Radio Times").
NORWAY: DX-Listeners Club, P.O. Box 1284 V, Oslo. Publ: DX-News – **Nor-Tape International**, P.O. Box 3067 EL, Oslo 2 (Publ: "Nor-Tape News" (newspaper) a. "Nor-Tape Newstape" (tape)).
REP. OF SOUTH AFRICA: *) Branch of Trans World Short Wave Club of South Africa – *) **Cape Short Wave Club International**, P.O. Box 139 Wellington Cape (Publ: "Zenith" in Engl.) – **Natal Short Wave Club International** 219 North Ridge Rd, Durban – **So. Africa Radio Japan Club**, 8 Belgravia Rd, Gleemor, Cape (Publ: "Japan Journal" in Engl.) – *) **The Transvaal Short Wave Club**, 231 Smit St, Braamfontein, Johannesburg (Publ: "The Transvaal Monitor" in Engl.) – **Trans World Short Wave Club of South Africa**, 45 Westview Drive, Port Elizabeth (Publ: "The Trans-Worlder" in Engl.) – **World Wide DX-Club**, 157, Faraday Blvd., Vanderbijl Park, Transvaal.
SWEDEN: Affiliated with 1) DX-Alliansen, 2) Sveriges DX-Förbund, 3) Sveriges Radioklubb, 4) Västerbottens DX-Förbund, 5) Wermlands Radio Union – **DX-Alliansen** (a national union of Swedish clubs), Box 3108, Stockholm 3 (Publ: "Allians-Nytt" in Sw. and "Allians News" in Engl.) – **Arctic Radio Club**, Box 220, Björneborg. Publ: "UW – Eko" – **Atlas DX-Club**, Box 34, Skene – 1,2) **Bjuv Radioklubb Bjuv** (Publ: "Eter-Aktuellt" from SDXF) – 1, 4) **Burträsk DX-Club**, Box 814, Burträsk (Publ: "Substancial") – 1, 2) **City DX-Club**, Box 29, Läckeby (Publ: "Eter Aktuellt") – 1, 2) **The DX-Companions**, Box 35, Hällestad (Publ: "Eter-Aktuellt" from SDXF a. "Rymdgnisten") – 1) **DX-Club Lundensis**, Fiskaregatan 1, Lund – **DX-Club QSL-Hunters**, Andrénsväg 16, Kumla (Publ: "Högtalaren") – 1) **DX-Club Tellus**, Götgatan 16, Söderhamn (Publ: "The Voice of Tellus") – 1, 2) **DX-Club 57**, Box 59, Kopparsberg or Box 46, Nässjö (Publ: "CQDX-Bulletinen") – 1) **DX-Club 63**, Box 144, Vimmerby (Publ: "SuDox") – **DX-klubben "The Explorers"**, Bondegatan 7, Falkenberg – 1) **DX-klubben Skraken**, Gimlevägen 10, Djursholm 2 (Publ: "The Voice of Tellus" from DX-Club Tellus) – 1) **Falkens DX-Club**, Box 5, Klintehamn (Publ: "Gute-DX-aren") – 1) **Fyris Radio Club**, Kyrkogårdsgt. 39, Uppsala – **Gnesta DX-Klubb Electron**, Mosebacke 4, Gnesta (Publ: "Electronnytt") – 1) **The Goodwill DX-Club**, Box 4235, Malmö 4 (Publ: "Calling All DX-ers") – **Göteborgs DX-Klubb**, Box 31004, Göteborg 31 (Publ: "GDX-aren") – 1) **Halmstads Kortvågsklubb**, Fack 15, Halmstad – 1, 3) **Hedesunda DX-Club**, Box 575, Hedesunda (Publ: "Ekot") – **International Radio Club**, Box 53, Gallejaurbygget (Publ: "IRC Bugle") – **Karlstads DX-Klubb**, Rämensgt. 20, Karlstad – 1) **Kopparbergs Radioklubb**, Fack 59, Kopparberg – **Melleruds Radioklubb**, Mellerud – **Malmö Kortvågsklubb**, Fack 7026, Malmö 7 (Publ: "Malmö DX-aren") – 1) **Mälardalens Radiosällskap**, Stenhällsv. 13. I, Stockholm K (Publ: "QRG-Bulletinen") – 1) **Nordic Radio Club**, Altunagt. 9, Västerås (Publ: "Norac Bulletin") (medium wave only) – 4) **Orion DX-Club**, Långnästräsk, Jörn – **Radio Communications DX-Club**, Fack 59, Kopparberg (Publ: "From Point to Point" in Engl.) (point to point DX only) – 2) **Radioklubben Dipol**, Skillingaryd – 2) **Radioklubben Electra**, Box 5670, Bollnäs (Publ: "RKE's Radiotidning") – 1) **Radioklubben Universal**, Box 53, Stuvsta – **Sinus DX-Club**, Karlskronav. 23, Johanneshov (Publ: "Sinus DX-News") – 1, 3) **Skandinaviska Radioklubben**, Box 5083, Stockholm 5 – **Skövde DX-Club**, Ingegt. 8 B, Skövde – 1) **Stockholms DX-Club**, Carl Larssonsväg 50, Bromma – 1, 2) **Sundets DX-Club**, Pilåkersgt. 27 g, Landskrona (Publ: "Eter-Aktuellt") – 1, 2) **Svalans DX-Club**, Fredsgt. 4, Hälsingborg (Publ: "Eter-Aktuellt") – 1, 3) **Sveriges Radioklubb**, Box 5083, Stockholm 5 (Publ: "DX-Radio") – 2) **Swedish Amateur Radiolisteners Club**, Box 701, Lund – **Sydic Radio Club**, Box 19018, Malmö 19 – **Sveriges DX-Förbund** Kyrkogt. 5, Nässjö (Publ: "Eter-Aktuellt") – 1) **Teknik för Allas Eterklubb**, Box 3137, Stockholm 3 (Publ: "Teknik för Alla") – 1) **Tuna Kortvågsklubb**, Box 2066, Eskilstuna 2 (Publ: "Electronnytt") – 1, 4) **Umeå DX-Club**, Myceliev. 49, Umeå 4 (Publ: "Substancial") – 1) **Västra Aros Lysnarklubb**, Box 165, Västerås 1 (Publ: "Kortvågen") – 1) **Västerbottens DX-Förbund**, Myceliev. 49, Umeå 4 (Publ: "Substancial") – 1) **Västmanlands DX-Klubb**, Mistelv. 8, Fagersta (Publ: "Short Wave Radio") – 1, 2) **Wermlands Radio Union**, Box 4071, Karlstad (Publ: "WRU-Nytt") – **Ystads DX-Förbund**, Box 23, Ystad (Publ: "The SWL-er").
SWITZERLAND: Schweizer DX-Club, Schürenstr. 3, Birmensdorf/ZH (Publ: "DX-Diary") – **Swiss BC-SWL-Club**, Rainallee 16, Riehen BS (Publ: "Swiss SW-News").
TAIWAN: Taichung Radio Japan Club, No. 21, Ho-Tso New Villa, Chi-Chiang St., Taichung.
THAILAND: La Lettre Ecriture République (I.P.D.X.), 458 Maha-charkr Rd., Bangkok.
UNITED KINGDOM: Alderman Newton's Boys' School DX-Club, 58 St. Leonard's Rd., Clarendon Park, Leicester, England – **Amateur Tape Reporters League A.T.R.L.**, 50 Goring Rd, North Dagenham, Essex, England (Publ: "ATRL Review") – **Blackley DX-Club**, 431 Bolton Rd., Kearsley, Bolton, Lancs., England (Publ: "Blackley DX-News") – **DX-Club England and International**, 2 Monkdowns Rd. Box 1, Coggeshall, Essex, England (Publ: "This is the Voice of England and International") – **International Short Wave Club**, 100 Adams Garden Estate, London, S.E.16, England (Publ: "International Short Wave Radio") – **International Short Wave League**, 12 Gladwell Rd., London N. 8, England (Publ: "The Monitor") – **International Short Wave Radio and DX-Club of Scotland**, 12 Downie Terrace, Corstorphine, Edinburgh 12, Scotland (Publ: "DX-Diary") – **Medium Wave Circle**, 7 The Avenue, Clifton, York, England (Publ: "Medium Wave News") – **Trans National DX-League (TNDXL)**, 76 Inverleith Place, Edinburgh 3, Scotland (Publ: "DX-Diary").
U.S.A.: American Short Wave Listeners Club, 824 Watt Drive, Tallahassee, Florida (Publ: Exec. Editor W. R. Gardiner "SWL") – **Black Hawk Radio Club**, 712 Morgan Ave., Asheboro, N.C. – **Five Stars Club**, 24360 Myers St., Sunnymead, Calif. 92388 (Publ: "Five Star DX-Club") – **Folcroft Radio Club**, 58 King Ave., Folcroft Pa. 19032 – **Freemont DX-Club**, 344 Jackson St., Freemont, Ohio (Publ: "Fremont News Messenger") – **Kentucky DX-ers Ass.** 546 Pond Run Rd., Raceland, Ky. 41169 (Publ: "Kentucky DX Reports") – **Midwest DX-Shortwave Radio Club**, 2375 W. Forest St., Decatur 111 (Publ: "The MWDXSWRC'er") – **National Radio Club**, Box 63, Kensington Station, Buffalo, N.Y. 14215 (Publ: "DX-News") – **Newark News Radio Club**, 215 Market St., Newark 1, N.Y. (Publ: "NNRC Official Bulletin") – **North American Short Wave Ass. (NASA)**, 1521 Fifth Avenue, Altoona, Pa. 16602 (Publ: "FRENDX") – **Ohio Valley Short Wave Club**, 1037 Ravenswood Dr., Evansville 14, Ind. – **Popular Electronics, Short Wave Monitors Club**, 366 Madison Ave., New York 17, N.Y. – **Santa Maria Valley DX'ing Ass.**, 141 Palm Court Dr., Santa Maria, Cal.

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A DIRECTORY OF THE ADVERTISERS

George P. Adair Engineering Company, Washington 6 DC, USA 136
Akustiche u. Kino-Geräte Gesellschaft m.b.H, Vienna XV, Austria ..... 3' cover
All India Radio, New Delhi, India. See text 152 153
Ampex Great Britain Ltd, Reading, England 33, 35
Asahi Broadcasting Co, Osaka, Japan. See text page 159 160
Australian Broadcasting Commission, Radio Australia, Melbourne Australia. See text page 170 172
Berlingske Tidende, Copenhagen, Denmark 240
British Commonwealth International Newsfilm Agency, London, N.W. 10, England 239
Brown, Boveri & Company, Ltd, Baden, Switzerland 55
Canadian Broadcasting Corpo, International Service, Montreal, Canada. See text page 178 180
Caracol, Primera Cadena Radial Columbiana, Bogota, Columbia. See text page 210 211
Ceskolovensky Rozhlas, Czechoslovak Radio, Praha 2, Czechoslovakia. See text page 82 23
Collins Radio Company, International Division, Dallas, Texas, USA 71
Compagnie Francaise Thomson-Houston, Groupe Electronique, Paris VIII, France ..... 4' cover, 87
Continental Electronics Manufacturing Company, Dallas 17, Texas, USA 9, 67
CSF Division International, Paris 8, France 63
Deutsche Welle, Cologne, German Fed. Rep. See text page 92 ... 93
Deutschlandfunk, Lindenallé 7, Cologne-Marienburg, German Fed. Rep. See text page 90 91
Elektroimpex, Budapest V, Hungary 58
E.M.I. Electronics Ltd, Hayes, Middlesex, England 43
Electronic Missiles and Communications Inc. (EMC), Mount Vernon, New York, USA 69
European Broadcasting Union (EBU), Technical Centre, Bruxelles, Belgium 130
Fabrica Italiana Apparechhi Radio, Milano, Italy 72
Far East Broadcasting, Manila, Philippines. See text page 164 ... 165
Fernseh GMBH, Darmstadt, German Fed. Rep 31
Finnish Broadcasting Co. Ltd, Helsinki, Finland. See text page 85 86
Gates Radio Company, International Division, New York 16, USA 13
Gevaert Photo-Producten N.V, Mortsel, Antwerp, Belgium 47
Ghana Broadcasting System, Accra, Ghana. See text page 137 01
Greater Publications Pty, Ltd, Sydney, Australia 174
Hammarlund Manufacturing Company Inc, International Division, New York 16, N.Y. USA 19
A/S Hellesens, Copenhagen, Denmark 24
IBRA Radio Federation, Stockholm 1, Sweden 120
International Radio and Television Organization (OIRT), Prague, Czechoslovakia 85
Kathrein Antennen, Rosenheim, W. Germany 44
Laboratoire Industriel d'Electronique Belin, Rueil-Malmaison, Fr. 06
Lyrec A/S, Lyngby, Denmark 49
Libyan Broadcasting Service, Tripoli, Libya. See text page 138 ... 139
The Marconi Company Limited, Broadcasting Division Chehusford, England 5
3M, Minnesota Mining and Mfg. Co, Minnesota, USA 27
Moscow Radio, The Sovjet Radio, Moscow, USSR. See text page 122 125
National Association of Commercial Broadcasters in Japan, Japan 159
N.B.C. International, New York, N.Y., USA 79
National Radio Company Inc, Melrose, Massachusetts, USA 29
Georg Neumann, Laboratorium für Elektroakustik, G.M.B.H., Berlin S.W. 61, German Fed. Rep. 03
Nigerian Broadcasting Corporation, Lagos, Nigeria. See text page 141 142
Nippon Hoso Kyokai, Japan Broadcasting Corp, Tokyo, Japan. See text page 156 158
Nippon Electric Company Ltd, Tokyo, Japan ..... 2' cover
Nihon Tanga Hoso, Nihon Short Wave Broadc. Co. Ltd, Tokyo, Japan. See text page 160 160
Norwegian Broadcasting Corpo., Kringkastinghuset, Oslo, Norway. See text page 108 109
Ocora (Office de Cooperation Radiophonique), Paris 9e, France. See text page 90 89
Philips N.V. Eindhoven, Holland 11, 16, 17
Philips Telecommunicatie Industrie, Hilversum, Holland 7
Polskie Radio i Televizja (Polish Radio and Television), Komitet despray Radiofonii, Warszawa, Poland. See text page 110 23
Pye, T.V.T. Ltd, Cambridge, England 59
Radio Andorra, Andorre la Vieille. See text page 80 78
Radio Bucharest, Bucharest, Rumania. See text page 112 113
Radio Clube de Mozambique, Lourenco, Marques, Mozambique. See text page 140 140
Radio Denmark, The Voice of Denmark, the Shortwave dept, Radio House, Copenhagen V. See text page 84 83
Radio Iran, General Dept. of Publications and Broadcastings, Teheran, Iran. See text page 155 155
Radiotelevisione Italiana (RAI), Rome, Italy. See text page 106 ... 15
Radio Nacional de Espana, Madrid, Spain. See text page 114 115
Radio Nederland Wereldomroep, Hilversum, Holland. See text page 103 105
Radio New York Worldwide, Worldwide Communications Center, New York 19, N.Y., USA. See text page 186 37
Radionette, Oslo, Norway 05
Radio Peking, The Peoples Rep. of China. See text page 148 149
Raytheon Comp. International Sales and Services, Lexington, Massachusetts, USA 61
Red de Emisoras del Movimiento, Madrid, Spain. See text page 114 117
Rocke International Corporation, New York 16, N.Y, USA 21
Rohn Communication Towers, Mart Haller Inc, Miami, Florida, USA 220
Scandinavian Transformer, Vanløse, Copenhagen 75
Short Wave Magazine Ltd, London, S.W. 1, England 161
Shure Brothers Inc., Export Department, Ewanstone, Ill, USA 02, 45
Siemens & Halske AG, Erlangen, German Fed. Rep. 25
Siemens & Halske GmbH, Vienna III, Austria 51
SONDOR, Willi Hungerbühler, Zürich 1, Switzerland 38
Singer Products Company Inc, New York 4, N.Y, USA 77
Sony, Tokyo, Japan 39
Swedish Broadcasting Corp., Radio Sweden, Stockholm 1, Sweden. See text page 118 ..... 118, 119
Swiss Shortwave Service, Swiss Broadcasting Corp., Berne, Switzerland. See text page 121 123
Telecommunication Journal, ITU, Geneva, Switzerland 90
Tele-Projects Corp., Communications Systems Engineers, New York 16, N.Y, USA 57
TRT, Telecommunications Radioelectriques and Telephoniques, Services Commerciaux, Paris 13e, France 65
Telefunken AG, 79 Ulm (Donau), W. Germany 73
Tuchel-Kontakt GmbH, Heilbronn, Neckar, German Fed. Rep ... 41
The Voice of the Andes (HCJB), International Missionary Station, Quito, Ecuador. See text page 213 213
Visuel Electronics International, New York 18, N.Y, USA 53
Voice of America, U.S. Information Agency, Washington 24, D.C. USA. See text page 181 3
World Radio-TV Publications, Lindorffsalle 1, Hellerup, Denmark 8, 74, 129
La Voix Evangelique d'Haiti (4VEH). See text page 193 193

Scandinavian Circulation:
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Facts that convince:
The sold circulation of the 1963 edition has been 20000 sold copies.
This circulation will reach at least 100.000 individuals and technical staff members of sound- and television broadcasting stations.
The only international handbook distributed to almost all broadcasting and television stations, manufacturers of electronic equipment, libraries, professionals, amateurs and listeners.
The only international handbook, which contains complete and exact information about broadcasting and television in all countries.
Highly appreciated and recommended by the United Nations, Unesco and all broadcasting and television organizations throughout the world.
Leading firms in the electronic branch and leading broadcasting organizations have for years have been steady advertisers for their products or their broadcasts and countries.
These facts give autority and weight to a salesmessage in the World Radio Television Handbook.

PRINTED IN DENMARK

STANDARD FREQUENCY AND TIMESIGNAL STATIONS

The ordinary sw. listener soon notices a specialized technical prgr. of tones and time pulses usually received on carrier freq's of 2,5, 5, 10 or 15Mc and sometimes on 20 and 25Mc, if he listens in that part of the spectrum. These signals have many uses in science and technology. They are most useful to the non-specialist in obtaining accurate time, in checking the calibration of his radio receiver, and in gaining information on radio propagation conditions. The forecasts of the present and future state of the ionosphere can be quite useful in determining the possibilities of sw-reception. The forecasts are given by WWV, WWVH and JJY for certain parts of the globe.

R. STATION WWV, WWVH, WWVB and WWVL (Go.)
St. WWV, Greenbelt, Maryland, USA: Eng-in-Charge. F. Sera. St. WWVH, Box 578, Puunene, Maui, Hawaii: Eng-in-Charge. S. Katahara. WWVB/WWVL, Box 83-E, Route 2, Ft. Collins, Colo, USA: Eng-in-Charge. R. F. Carle – **L.P:** Chief Freq. and Time Broadc. Sce's. D. H. Andrews, National Bureau of Standards, Boulder, Colo, USA.

Standard Radio Frequencies:
WWV, 2500kc 1kW; 5000kc 8kW, 10000kc 9kW, 15000kc 9kW, 20000kc 1kW, 25000kc 0.1kW: The broadc. are continuous, night and day, exc. from 45 min. to 49 min. past each h – **WWVH,** 5000kc 2kW, 10000kc 2kW, 15000kc 2kW: Continuous exc. from 15 min. to 19 min. past each h – **WWVB,** 60kc 7kW: Continuous – **WWVL,** 20kc 1kW: Continuous, except to permit experimental changes.
Program: WWV and WWVH transmit two standard audio freq's, 440 and 600 cps, commencing precisely on the h and each 5 min. thereafter exc. for the silent periods. No tone modulation is transmitted during the last 2 min. of each 5 min. period. During the third min. of each 5 min. period, exc. the first and tenth, WWV transmits a timing code. A pulse of 0.005-second duration occurs on each carrier freq. at intervals of precisely one second, exc. the last second of each min. WWV and WWVH transmit radio propagation forecasts and IWDS "state of warning" in Intern. Morse Code twice each h. Universal Time is announced from both st's in Intern. Morse Code each 5 min. At WWV a voice ann. of Eastern Standard Time is given each 5 min. as follows: "National Bureau of Standards, WWV, when the tone returns Eastern Standard Time is... am or pm". WWVB st. identification is transmitted by keyed 600cs modulation, giving the call sign in Intern. Morse Code on the h and every 20 min. thereafter. Immediately following this, the freq. offset is given in Intern. Morse Code by keyed 600cs modulation, the letter "M" indicating minus sign. Time signal modulation (DSB) includes precise second markers of a pulse of 5 cycles of 1kc; minute markers of a 1kc pulse of $^3/_4$ second duration; hour markers of a 1kc pulse of $^3/_4$ second duration. WWVL identifies by keyed carrier giving the call sign in Intern. Morse Code on the h and every 20 min. thereafter. Immediately following identification, the freq. offset is given in Intern. Morse Code by keying the carrier, the letter "M" indicating the minus sign. The 20kc carrier and an exp. sideband some cycles removed are transmitted alternately with a switching rate of precisely one second each.
V. by QSL-card or letter. **pub:** Prgr. sched. on request.

National Physical Laboratory (Go.)
Addr: Teddington, Middlesex, Gt. Britain.
MFS Standard Frequency Service:

kc	m	kW		kc	m	kW	
2500	120	0.5	continuous*	10000	30	0.5	continuous*
60	5000	10	14.29–15.30	5000	60	0.5	continuous*

MFS Standard Freq. Sce: continuous* but transmission interrupted 6 times an h at min's 5–9$^1/_2$, 15–19$^1/_2$, 25–29$^1/_2$ etc.
Ann: Call sign. and freq. offset (in parts in 10^{12}) 3 times in slow morse, at min's 9$^1/_2$10, 19$^1/_2$–20, etc. in each h – **V.** by letter.

Royal Greenwich Observatory
Addr: Time Dept, Herstmonceux Castle, Hailsham, Sussex, England. The international t.s's are radiated by GBR (16kc) or reserve st. GBZ 19.6kc) at 03.00, 09.00, 15.00 & 21.00 and on high freq's at 09.00 and 21.00. The freq's used are selected according to current ionospheric predictions. Freq's available: GIC24 4025kc, GAY25 5807kc, GIC26 6985kc, GIC27 7397.5kc, GIC29 9350kc, GPB30B 10331.5kc, GPB30 10332.5kc, GKU5 12790kc, GIC33 13555kc, GIC37 17685kc, GIA39 19640kc.

Time Signal from Dominion Observatory
Addr: Dominion Observatory, Dept. of Mines and Technical Surveys, Carling Av, Ottawa, Ontario, Canada – **Te:** 992-8211 – **L.P:** Adm: Dr. C. S. Beals. Dir. Tec: M. M. Thomson.
Stations: CHU 3330kc 90.09m 0.75kW – 7335kc 40.90m 3kW – 14670kc 20.45m 3kW – **Time Signals** continuous in voice and second pulses – **Ann:** H's and min's ann. during the last 10 seconds of each min: "CHU Dominion Observatory, Canada, Eastern Standard Time". **V.** by QSL-card – Rep. not wanted – **Pub:** Prgr. sched. free.

Station JJY
Addr: Radio Research Laboratories, Koganei, Tokyo, Japan. **Te:** (0423)-8-1661 – All st's 2kW, nd. 2500kc – 5000kc. D 24 h – 10000kc D 24 h – 15000kc. D 24 h.
All standard freq's are interrupted at 29–39 min. past each h. No audio modulation on 15Mc – V. by QSL-card. Re. to Standard Freq. Section.

HBN Neuchatel Observatory
Addr: Neuchatel, Switzerland. **Cable:** Observatoire. **Te:** (038)-5-1238 – **L.P:** Dir: J. Bonanomi, W. Schuler – On 5000kc all day long:
Prgr. of tr: continuous tr. interrupted every 5 min. for 5 min. according to the following schema: 00m 00s – 04m 50s silence, 04m 50s – 05m 00s HBN (A_2), 05m 00s – 10m 00s carrier tr. with seconds pulses, 10m 00s – 14m 50s silence, etc – Within the h, the tr. is the following: Minutes 0–5 silence, 5 10 carrier and seconds pulses, 10–15 silence, 15–20 carrier and seconds pulses, 20–25 silence, 25–30 carrier and seconds pulses, 30–35 silence, 35–40 carrier and seconds, 40–45 silence, 45–50 carrier and seconds, 50–60 silence.

Station LOL
Addr: Observatorio Naval de la Secretaria de Marina Costanera Sud, Buenos Aires – **L.P:** Dir. Gen: J. Marpegán.
Standard Freq. and Signals: 5000kc 2kW – 10000kc 2kW – 15000kc 2kW – D 11.00–12.00, 14.00–15.00, 17.00–18.00, 20.00–21.00, 23.00–24.00 – **Schedule:** 4 min. dash (1000 or 440cs alternately) beginning at 00.00, 00.05, 00.10 etc. Then 3×LOL in morse followed by ann. T.S. transmission at min. 55–59 in each h.

Standard Frequency Station OMA
Addr: Budecska 6, Prha 2, Vinohrady, Czechoslovakia – **Te:** 253017. Dir: B. Sternberk – **Stations:** OMA 50kc 5kW: 24 h – OMA 2500kc 1kW: 24 h – OLB5 3170kc 8kW – D 17.00–05.00 on all freq's. OLD2 18985kc 8kW. Direction to F. East. Wed, Fri 12.30–13.00 – **Ann:** In morse-code – V. by letter. Re. wanted.

National Research Centre of Telecommunications
Addr: Centre National d'Etudes des Télécommunications, Laboratoire de Bagneux, 196, rue de Paris, Bagneux (Seine), France. FFH: 2500kc 0.25kW: Tues & Fri 08.30–16.30.

Rep. Observatory-South Africa (Go.)
Addr: Republic Observatory, Johannesburg. Tel. 43-2026. **Cable:** Astronomer – **L.P:** Dr. W. S. Finsen – **Stations:** Call ZUO: Olifantsfontein 5000kc 4kW – Johannesburg 10000kc 0.25kW – Johannesburg 100Mc 0.050kW Omnirectional. 24 h per day, exc. for interruptions 15 to 25 min. past each h.

Time Signals: Continuous second pulses, consisting of 5 cs of 1000 cs tone. The minute pulse is prolonged to about $^1/_2$ second – **Ann:** In morse code every 15 min.s (just before each quarter hour): ZUO, ZUO, ZUO followed by the Universal time of the next minute – **V.** by letter will be answered if they are genuine reports – **Pub:** Monthly bulletin of time and freq. correction.

RWM, Moscow, USSR
Addr: Ministere des Comm. postales et electriques, Moscow.
Stations: All 20kW: 5000kc 05.00–08.00, 17.00–06.00 – 10000kc 13.00–16.00 – 15000kc 01.00–04.00, 08.30–13.06.
ATA, New Delhi, India
Addr: National Physical Laboratory, New Delhi.
Stations: 10000kc 2kW: Mo-Fri 05.30–10.30.
BPV, Peking, China
Addr: BPV, Peking – **Stations:** 5000–10000–15000kc 24 h daily.
IAM, Rome, Italy
Addr: Instituto Superiore. Ministero P. T, Rome.
Station: 5000kc 1kW – All days exc. Sun 07.30–08.30.
IBF, Turin, Italy
Addr: Instituto Elettrotecnico Nazionale, Corso Massimo d'Azeglio 42, Turin – **Station:** 5000kc 0.3kW. W 06.50–07.30, 10.50–11.30.
ZLFS, Lower Hutt, New Zealand
Addr: Dominion Physical Laboratory, Lower Hutt.
Station: 2500kc 0.3kW: CW only – Tuesdays 01.00–04.00.

DCF77, Mainflingen, Germany
Addr: Physikalisch-Technische Bundesanstalt, Braunschweig, Bundesallé 100, Fed. Rep. of Germany. **Cable:** "Bundesphysik". **Te:** 5921 – **L.P:** Pres: Prof. Dr. Ing. Kersten. Dir. of Dept I: Prof. Dr. U. Stille. Dir's: Dr. U. Adelsberger, Dr. Ohl, Dr. Süss.
Station: DCF77 77.5kc 12kW, nd D transm. extends essentially from 06.45–10.35, 19.00–20.10. Call-sign DCF77 in morse-code, amplitude modulation 440cs.

NEWS IN ENGLISH IN THE FOREIGN SERVICES

from all shortwave stations

* = News summaries – [1] = Sun. only – [2] = Sat.

Abbreviations: DW = Deutsche Welle – RBI = Radio Berlin International. – Further abbreviations see page 74. See also our message: News from Around the World on page 74.

00.00 AFRTS
VOA
BBC
R. Japan
Malaysia
Moscow
Norway[1]
Sofia
00.05 Roma*
00.15 ABC
00.30 AIR
Budapest
Roma
NZBC
Pakistan
Singapore
00.55 WRUL
01.00 CBC
Japan
Moscow
4VEH, Haiti
Peking
Prague
RBI
Sofia
VOA
AFRTS
01.05 Roma*
01.15 Amman
Brazzavil
NZBS
01.30 Bucharest
Budapest
ABC
FEBC
Nederland
01.35 DW
SBC
01.45 Sweden
02.00 AFRTS
ABC
BBC
Ceylon
Denmark
Japan
Pakistan
Moscow
Lisbon
Peking
VOA
02.05 Roma*
02.30 ABC
RBI
02.50 Taiwan
03.00 AFRTS
BBC
Budapest
Cuba
Japan
Peking
Moscow
Pyonyang
VOA
Bucharest
Budapest
03.02 Argentinia
03.05 Roma
03.15 Japan
Sweden
RNE
03.30 ABC
BBC[2]
Denmark
Prague
Seoul
03.45 Lisbon
SABC

04.00 AFRTS
ABC
BBC
Japan
Peking
Moscow
Roma
Sofia
VOA
04.05 Roma*
04.15 RNE
04.25 Thailand
04.30 AIR
Prague
Bucharest
04.55 DW
05.00 ABC
AFRTS
BBC
Cuba
CBC
Japan
Moscow
Norway[1]
RBI
05.02 VOA
Argentinia
DW
Roma*
05.15 ABC
Brazzav.
RNE
05.30 Cambodge
Japan
Seoul
06.00 ABC
AFRTS
ELWA
BBC
Japan
Argentinia
VOA
Moscow
06.05 DW
06.30 FEBC
Ceylon
Cairo
RBI
06.40 Moscow
07.00 ABC
AFRTS
BBC
CBC
Ceylon
Japan
Moscow
Nederland
NZBS
VOA
07.05 SBC
07.15 CBC
UNO[2]
07.30 Malaysia
Seoul
Warsaw
DW
07.45 Japan
Ceylon
08.00 CBC
AFRTS
Japan
Prague
VOA
DW
08.30 Brazzav.
08.30 Pakistan
Peking

08.30 Warsaw
08.45 ABC
DW
09.00 AFRTS
ABC
Japan
RBI
Roma
VOA
09.03 NZBS
09.05 SBC
09.15 BBC
Ceylon
09.20 Roma
09.30 Denmark
FEBC
Japan
Pakistan
10.00 AFRTS
AIR
ABC
Brazzav.
NZBS
Japan
VOA
10.10 Taiwan
10.30 Kabul
Seoul
Thailand
10.45 Roma
11.00 ABC
AFRTS
Brazzav.
BBC
ELWA
Japan
Kabul
Moscow
RBI
SABC
VOA
11.15 RRI
11.30 Haiti
11.50 SBC
12.00 Moscow
Prague
Warsaw
AFRTS
Brazzav.
ABC
Japan
Peking
Pyonyang
RBI
Norway[1]
VOA
12.25 WRUL
Cambodge
12.30 Japan
Sweden
Moscow
RBI
12.45 Ceylon
DW
BBC
12.50 SBC
12.55 WRUL
13.00 Brazzav.
AFRTS
BBC
ABC
Ceylon
Japan
DW
13.00 Moscow
Warsaw
VOA

13.30 AIR
Moscow
RBI
13.35 Pakistan
13.45 Lisbon
Cairo
Ankara
13.55 WRUL
14.00 ABC
AFRTS
Ghana
HCJB
Japan
Kabul
Nederland
Peking
RBI
SABC*
Sweden
Norway[1]
Nigeria
14.30 Brazzav.
14.45 Ghana
Japan
RRI
Sweden
14.50 SBC
14.55 WRUL
15.00 ABC
AFRTS
Bucharest
FEBC
Denmark
Japan
Moscow
Peking
Vatican
VOA
15.10 DW
15.15 Japan
15.25 WRUL
15.30 CBC
Taiwan
15.35 Roma
15.45 Moscow
15.50 DW
15.55 WRUL
16.00 AFRTS
ABC
BBC
Bucharest
Japan
Norway[1]
Peking
Prague
RBI
SABC*
Kol Israel*
16.15 AIR
DW
Sweden
16.20 Kol Israel
16.50 SBC
16.55 WRUL
17.00 ABC
BBC
AFRTS
Brazzav.
CBC
Japan
Ghana
4VEH, Haiti
Moscow
Nigeria
Peking
17.15 BBC*
SABC

17.15 ELWA
17.25 Japan
17.30 RBI
ABC
WRUL
17.55 WRUL[1 2]
18.00 AFRTS
BBC
Cairo
Japan
Nigeria
Norway[1]
NZBS
Moscow
Lisbon
Peking
VOA
18.20 Roma
18.25 Ethiopia
18.30 ABC
CBC
Belgrad
Moscow
RBI
Warsaw
Lebanon
18.45 Abidjan
Pakistan
18.55 WRUL
19.00 Tanganyika
AFRTS
ELTF
HCJB
Denmark
Japan
Moscow
Prague
Peking
NZBS
SABC
Warsaw
VOA
19.05 Sofia
19.15 RRI
NHK
19.25 WRUL[1 2]
19.30 Bucharest
Brazzav.
Nederland
Budapest
RBI
Warsaw
Sofia
WRUL
19.45 Cairo
BBC
Pakistan
Sweden
AIR
19.55 WRUL
20.00 AFRTS
ABC
BBC
Budapest
Ghana
NZBS
Kol Israel
WINB, USA
Japan
Pyonyang
Norway[1]
Moscow
Tirana
VOA
20.15 Denmark
20.15 RBI
20.20 Madrid

20.20 DW
Cuba
20.25 Ethiopia
20.25 WRUL
Kol Israel*
20.30 NZBS
SABC*
Warsaw
Peking
20.45 Iran
CBC
20.50 Ghana
20.55 WRUL
21.00 ABC
AFRTS
Ankara
Baghdad
BBC
Bucharest
Cuba
Lebanon
Morocco
Moscow
Japan
SABC*
Sofia
VOA
21.10 DW
21.25 WRUL
21.30 Ghana
Leopoldv.
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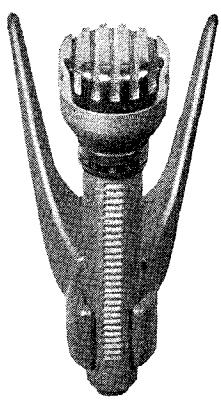
Nederland
Peking
RBI
Sofia
WRUL
Tirana
21.45 ABC
Cairo
21.55 WRUL
22.00 AFRTS
BBC
CBC
Belgrad
Budapest
WINB, USA
Cuba
Ankara
Argentinia
RBI
Sweden
Moscow
VOA
22.20 ABC
22.30 Bucharest
Pakistan
Warsaw
KGEI, USA
Moscow
22.55 WRUL
23.00 AFRTS
BBC
CBC
Argentinia
Japan
Moscow
VOA
23.05 RAI
23.25 WRUL
23.30 ABC
FEBC
WRUL
Japan
23.55 WRUL

Million-dollar Studio

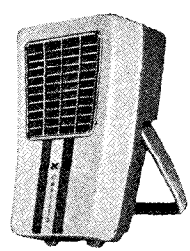
or

Fifty-dollar Mike

?



D19B



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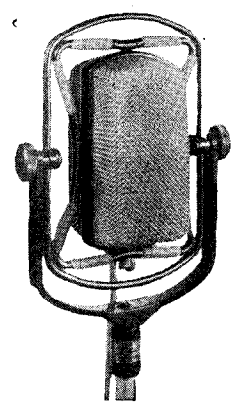

D45B

★ A million dollars might buy you an acoustically-perfect recording studio, free of low-frequency reverberation.

★ Fifty dollars will buy an AKG dynamic cardioid microphone that does the same job, retains its directional selectivity clear down into the bass and makes even a »live« livingroom a recording studio.

Of all microphone makers, AKG of Vienna has the basic patents on dynamic mikes with full-range cardioid response — the characteristic that alone makes this possible. AKG's cardioids are cardioid where you need it most!

This is only one of the plus values in an AKG. They are all rugged . . . smooth in their translation of sound . . . built with care and oldworld craftsmanship.

From von Karajan to Joe Doakes, AKG is first choise for crips, full-bodied sound. From $ 485 to $ 27*), AKG dynamics are the cardioidest dynamic mikes you can buy today.

Write for your nearest representative and service station to:

AKUSTISCHE U. KINO-GERÄTE GMBH

WIEN XV., NOBILEGASSE 50 . AUSTRIA

TELEPHONE: (02 22) 92 16 47 TELEX: 01 1839 CABLES: MICROPHONE WIEN

*) US-retail prices.

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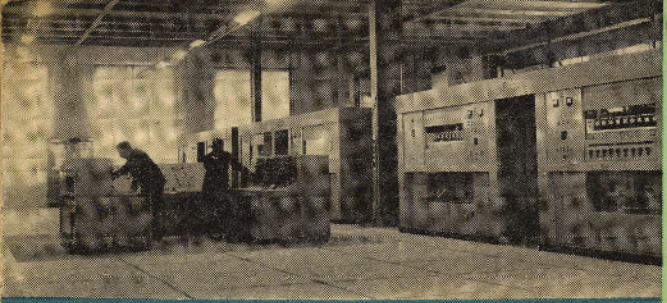

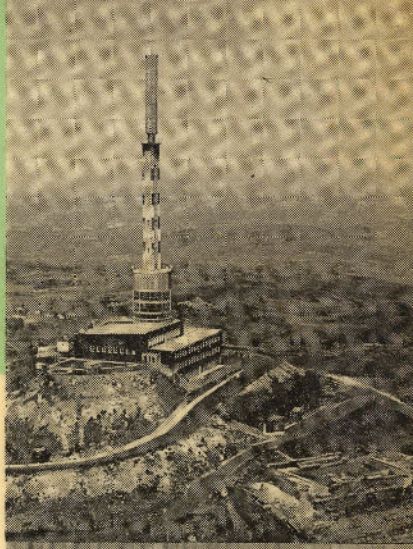

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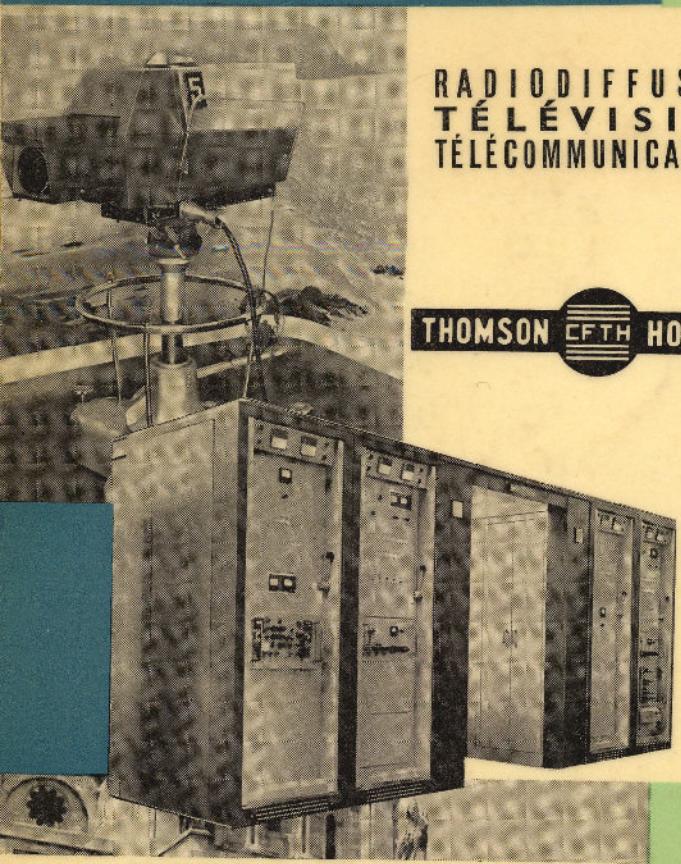

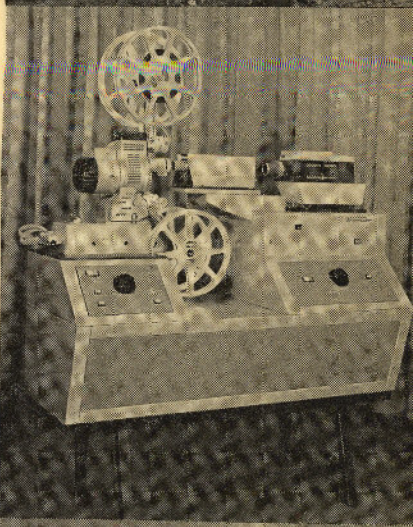

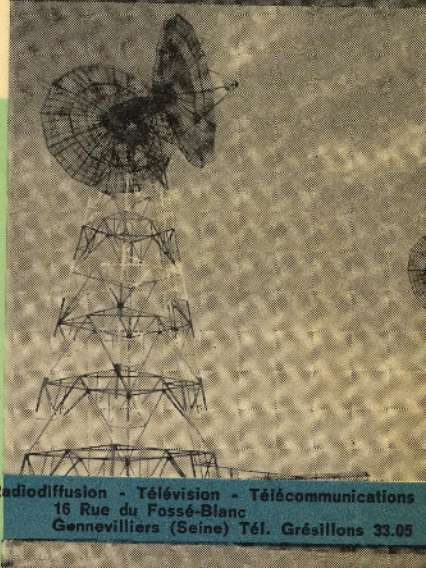

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